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Original Articles.

INDICATIONS FOR OPENING THE MASTOID CORTEX.*

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THE classical symptoms of mastoiditis and the indications for operating are clearly outlined in every standard text-book. For the student the didactic description of a typical mastoid is necessary, and the exceptions and typical cases must be learned in the hard school of experience. Even for the consultant it is one thing to see a case in a well-ordered institution with all its facilities for laboratory and X-Ray help, and where an early paracentesis has been done, and quite another problem to be called on the fourth or fifth day of an active middle ear to decide whether to operate or not. An incomplete or no paracentesis may have been done and the case may be so far removed from hospital assistance that reliance must be placed on symptoms that experience teaches indicate or contraindicate removal of the mastoid cortex. Fortunately these symptoms of advanced bone involvement have been studied until today few cases are met with that do not have some one indication present to warn us of danger, although there is no one symptom but what may be absent.

Indications: The indications that justify the removal of the mastoid cortex may be given under three heads:

First, to remove a pyogenic focus threatening the life of the patient.

Second, to conserve hearing.

*Read before the Philadelphia Laryngological Society, Nov. 1, 1921.

Third, to prevent a chronic mastoiditis.

In the presence of threatened complications all these indications may be present in one case or any one indication may lead us to decide that the best interests of the patient favor an immediate mastoid operation.

With an acute middle ear and mastoid involvement it may be said that operation is the safer alternative. In order, however, to obtain an early dry middle ear and good hearing it is necessary to choose a time for the operation when the bone abscess has commenced to be walled off by a leukocytic barrier, that is, has commenced to limit itself so that the involved area is definitely outlined and the infection has commenced to subside. In a series of twelve cases operated by the writer, in five cases the middle ear was dry on the fourth day, one on the fifth, one on the sixth, one on the seventh and four on the thirteenth to fifteenth day. While the type of infection, the resistance of the patient, and the question of re-infection must be considered as factors in delayed healing, yet the judgment of the operator as to when to operate, the writer feels, is the most important. We must remember that in all cases of virulent middle-ear infection the mastoid is involved, and to operate in the congestive stage means a prolonged middle-ear discharge and the danger that deeply placed cells may break down later. This is particularly true if the operation is done when the resistance of the patient is low, as is the case when mastoiditis complicates an infectious disease. The writer observed two such cases in one service. One patient had a simple mastoid by an experienced operator, and almost immediately showed symptoms of whooping cough. The mastoid healing went on normally. The temperature had been

normal for three weeks, the wound was healed except for a stitch abscess at the lower margin. At the end of the fourth week the patient had sudden marked pain in the head, the temperature went up to 102° , and the white count to 26000. No other cause being found, the wound was re-opened by the writer, the cells found broken down around the lateral sinus, and the sinus thrombosed back to the torcular. The other case showed late involvement of the deep cells, but was otherwise of no particular interest. The question of which mastoid to open when both sides are involved is often a serious problem for the most experienced. In most cases of acute middle ears with mastoiditis we have as symptoms changes in the membrana propria, discharge, temperature, tenderness over the antrum and tip with sagging of the posterior superior canal wall. How far can we depend on these symptoms as indications for operative interference? Are there any other symptoms of equal importance in making our decision?

Membrana tympani. A nipple perforation with a fibrinous exudate in the middle ear or a so-called boggy membrane at the end of a week often indicates a low-grade process with a tendency to become chronic.

Temperature. The temperature is of no diagnostic significance, and rarely goes much over 102° .

Posterior superior wall. Sagging of the posterior superior wall is perhaps the most constant and reliable symptom for operation in acute mastoiditis that we have. Even this symptom may be valueless owing to a circumscribed or diffuse external otitis. When the canal infiltration and a middle ear are associated, and particularly when the oedema has extended to the mastoid cortex, the diagnosis may be very difficult.

Tenderness over the antrum and tip of the mastoid. This is usually present during the first three days, and then as the periostitis subsides may entirely disappear. In itself it is not an indication for opening the cortex as it is present in practically all cases of acute congestion of the mastoid bone whether it is to undergo resolution or not. Another local symptom is of great importance, and is illustrated by the following case: A policeman was brought to the office with an acute ear. The drum was bulging, and there was extreme tenderness over the entire cortex. A free paracentesis was done under gas. The third day his physician 'phoned that the discharge had stopped and the tenderness had all gone. He improved so that on the sixth day he was out of doors. On the seventh day he had extreme pain, and an immediate operation was done when the entire bony structure of the mastoid was found broken down. In this case, whatever the condition of the patient, there was one symptom that should have indicated danger and the need of an operation, and that was swelling back of the tip with tenderness over the emissary vein. In the expe-

rience of the writer, when this comes on with the subsidence of the periostitis we can predict deep bone destruction as probably going on. The absence of pain after the third day is not unusual as the breaking down of the bony framework is not accompanied by pain unless a periostitis is present.

Discharge. The discharge after seven or eight days has two valuable diagnostic features. We say after seven or eight days, for the observation of Schwartz that few acute mastoids need to be opened until the eighth day after the onset of the middle ear, with exceptions, still holds good. Then if the discharge is more than can be accounted for by the middle-ear condition, or if the serous discharge has become purulent, immediate operation is indicated. This is especially true if the patient is toxic.

Duration. After considering all the above indications for opening the cortex, we must also take into account the duration of the mastoid infection. Any case that does not show signs of improvement after ten days may justify operation to preserve hearing or prevent a chronic mastoiditis.

Another danger in operating too early should be pointed out before leaving our consideration of acute mastoiditis. That is that the original infection in the nasopharynx may not have quieted down and the middle ear may become re-infected. This was shown in a case of double mastoid operation where the patient did well for three days when there was a marked increase in the middle-ear discharge. On removal of the tonsils the discharge immediately quieted down, and there was a dry middle ear on the seventh day on both sides.

Night pain. As the patient seems to be convalescing it is always a suspicious symptom to have pain at night. This comes on after the patient has dropped to sleep, and may be only sufficiently severe to awaken him. During the day it may be entirely absent and the patient feel normal.

Leukocytosis. The white count is a help only, and may vary from 10000 to 18000, and is more an indication of the resistance of the patient. When there is a sudden increase to 25000 or more, accompanied by a chill, it is a valuable indication of some complication, usually a sinus infection. The gradual recession is also indicative of a probable favorable termination. The polymorphonuclear neutrophils are increased from 70% to 85% to 90%, and a sudden drop to 70% shows a loss of resistance. A high polymorphonuclear percentage indicates the severity of the infection.

Bacteriology. Type of infection: The streptococcus mucosus and pyogenes or the pneumococcus with the micrococcus catarrhalis is considered by Loeb and Beck to strongly indicate that an operation will be necessary. This is an indication only, for patients react differently to the same infection.

Type of mastoid. The type of mastoid is to be considered. The pneumatic mastoid is more apt to undergo resolution with useful hearing, and the infantile type, in a general way, is more apt to become chronic.

The X-Ray is a valuable aid to diagnosis if we remember its limitations, especially after the acute symptoms have subsided. It is very rare that we should consider operation on the X-Ray picture alone. It needs the clinical picture to reinforce it and some one skilled in its interpretation.

A high temperature, associated with nausea and vomiting, convulsions or severe headaches, would indicate immediate operation if mastoiditis were present. In children these symptoms might come from a middle ear alone; therefore, a free paracentesis may change the whole picture.

While the clinical picture of mastoiditis must be taken as a whole in forming an opinion for or against operation, yet the individual symptoms vary markedly in relative importance, and some are almost diagnostic of surgical mastoiditis alone. The one safeguard against mastoiditis, as a complication of acute otitis media, of supreme importance, is early and free incision of the drum membrane.

Chronic cases. Indications for operation: (1) continued suppuration resisting local treatment and accompanied by anemia and poor resistance of the patient; (2) chronic discharge with cholesteatoma; (3) chronic mastoiditis with acute exacerbations in which the hearing is practically gone and treatment is unsuccessful; (4) chronic mastoiditis with facial paralysis, chronic unilateral headache, labyrinthine or meningeal irritation. All cases showing any labyrinthine reaction are included advisedly. During the last ten years it has been the policy of the surgeons of the Massachusetts Charitable Eye and Ear Infirmary to do a radical mastoid without opening the labyrinth as long as there was any cochlear or vestibular response. During this time only one case of meningitis has followed this practice. Not over two or three cases have been seen in which there was not some labyrinthine response, excluding cases of dead labyrinth. In 1920 there were 3000 ward cases and an average of 114 daily out-patient cases treated. (5) Chronic mastoiditis with polypi springing from the promontory and oval window.

While the tendency to operate is less marked than formerly, yet it should be impressed on the public and general practitioner that a chronically discharging ear is a menace to life. While aurists have felt that many patients died annually from meningitis due to an unrecognized aural origin, yet the number of cases was not appreciated until the statistics of Kittredge were published in 1912. His investigation showed that in the State of New Hampshire there were more deaths from a simple meningitis, excluding tubercular and cerebro-spinal

meningitis, than from diphtheria and scarlet fever combined; one-half of his statistics covered a period before the use of antitoxin. During a period of four years there were 815 deaths from simple meningitis, and, as he says, it is fair to assume that most of them were secondary to a middle ear. The sequence of events is sometimes as follows:

Miss M., aged 14, had had a chronic scanty middle ear discharge since childhood. An acute nasopharyngitis was accompanied by marked frontal sinus pain. On the sixth day she developed a temperature of 104°-104.5° and became unconscious. No complaint had been made of the ear, and the frontal sinus pain led the attending physician to suspect meningitis. A rhinologist was called in who happened to be also an aurist. During the routine examination a foul discharge was found in the middle ear and evidence of mastoiditis with probable sinus thrombosis. The patient was still unconscious, and operation was refused on the ground that she would die anyway. The writer saw the case in consultation, and advised tying the jugular. Practically no anesthetic was used, except for the skin incision. The mastoid was rapidly opened and the jugular tied by Dr. Porter. The patient recovered, and left the hospital on the fourteenth day.

The local subjective symptoms in chronic mastoiditis may be entirely absent. There is a history of continuous or intermittent discharge. If intermittent during the acute exacerbation, the sagging of the posterior superior wall and possible tenderness back of the tip may be present. The subjective symptoms, however, in chronic cases, are not usually due to a periostitis and acute bone congestion with toxemia, but to interference with drainage and pressure, hence the pain is usually referred to the head. Sometimes the milder symptoms, such as headache and occasional dizziness, have been endured by the patient for a long time until sudden vertigo, nausea, severe headaches, convulsions or symptoms of meningitis demand relief. When patients do apply earlier on account of tinnitus, foul discharge or loss of hearing, the seriousness of the case requires a careful neuro-otological as well as middle-ear examination. More often they should be observed over some time before a definite conclusion can be reached. In the interval all foci in the nasopharynx that might excite an acute exacerbation should be removed and the drainage from the middle ear promoted by incision and the removal of desquamating epithelium, pus and bone detritus. Following this treatment, if the discharge does not stop or there are symptoms of complications, a radical operation should be done. We must remember that all the symptoms of meningitis, including a bacteriemia with virulent organism in the spinal fluid, may be due to a complicating sinus infection, and prompt removal of the cortex and ligation of the jugular may save the life of the patient.

THE INFECTED COLON AS RELATED TO THE TOXIC PSYCHOSES.*

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THE work here presented is a portion of the epoch-making research into the nature and treatment of insanity, conceived and executed by Henry A. Cotton, Director of the State Hospital at Trenton, New Jersey, and to him, with deep appreciation, I make acknowledgment of the privilege of sharing in his work and of contributing that minor portion which my technical surgical knowledge and researches have made possible.

As to the important and far-reaching consequences of this work in solving, as it does to large degree, the problem of the insane, I have only to quote from the speech of Hubert Work, President of the American Medical Association, October 21, 1921, at the recent dedication of the new surgical pavilions for preventive insanity, granted to Dr. Cotton by the New Jersey Legislature for the State Hospital.

"When mental derangement was finally recognized as a symptom, the treatment of it instantly gathered to it all that was known in medicine with the additional necessity for hospitals with scientific equipment. This institution is an expression of the public mind of the people of New Jersey, a composite picture of their social morals, their charity and Christianity in its broadest sense, and it is, as well, a monument to the most advanced civilization of her people. Speaking for the organized medical profession of the United States, almost 100,000 ethical, earnest men and women, I congratulate the people of New Jersey, compliment its medical profession and approve the direction, length and the number of steps it has taken towards ministering to minds diseased."

For those who may have further interest in this engrossing problem, I recommend a careful perusal of Dr. Cotton's Van Uxem Lectures delivered at Princeton University last spring, and now being published by Scribners, "The Defective, Delinquent and Insane."

The term 'toxic' psychosis for the purpose of this paper includes manic depressive insanity, dementia praecox and certain of the 'paranoid' states, thus embracing all the so-called 'functional psychoses.' Of the admissions to the State Hospital at Trenton, half are classed as toxic psychotics, a ratio which would be fairly constant in the country at large.

Of this great group let it be said briefly but definitely that under modern methods of diag-

nosis each and every patient has been found to harbor extensive foci of infection. The most constant finding has been oral infection, practically all these patients having badly infected teeth and tonsils. However, in only about 25% of all the cases is the infection limited to the mouth. A study of over five hundred women belonging to the toxic psychotic group has shown that severe cervical infection is present in over 75%, this infection being non-venereal and by no means limited to parous women. Gastro-duodenal infections have averaged about 40%. Severe and damaging infection has been found to exist in the lower intestinal tract, chiefly in the colon, in about 20%. As to the incidence of these foci of infection very little is known as regards the relative time of their occurrence, but prolonged experience with them has convinced Dr. Cotton that the primary focus is most frequently in the teeth and tonsils. He has repeatedly called attention to the fact that, when the teeth are infected, the tonsils are almost sure to be, and *vice versa*. Some of the foci, as has been noted by other observers, may properly be looked upon as secondary extensions from the primary foci. Examples of this are considered by us to be seen in the frequently noted seminal vesiculitis and in infection of the antra. An important point about the seminal vesicles that we have noted in a series of over one hundred cases, chiefly among criminal insane, is that although colon and streptococcus vesiculitis was as high as 33%, it was not so often found in the earlier stages of the psychosis as in the later, as average duration of from three to four years having been noted. The inference from this clinical observation is that, as above stated, infection usually occurs secondarily through the lymph or hemic channels, probably from the teeth and tonsils.

This paper, however, bears specifically upon the gastro-intestinal lesions, which, until some better form of therapeutics is established, can be dealt with only by surgery. Originating largely in mechanical conditions, both congenital and acquired, it is to be expected that such lesions should react to mechanical methods of treatment. As the success of our work is to be explained largely by the complete synthesis of medicine and surgery and an abolition of all the foolish jealousies so frequently existing between their advocates, it is hardly necessary to say that all the surgical therapy is always supplemented by the most continuous and intensive medical treatment, notably by autogenous vaccines and by anti-streptococcus and anti-colon sera. It is important to note that since the introduction of this specific serum, all other technical conditions remaining as before, the mortality in the last 77 colectomies has been 12% as compared with 30% in the previous 100. This has been shown to be due to a striking decrease in the failures of union at the point of lateral anastomosis and also of ulcerations and perforations near the anastomosis which formerly added to the mortality.

*Read at the Annual Meeting, November 21, 1921, of the New Hampshire Surgical Club, Dartmouth Medical School, Hanover, N. H.

It is unwise to draw deductions from a small series, but our present view is that the reduction in mortality is closely associated with this serotherapy. If maintained, this rate is no higher than what is current for certain well-established surgical procedures, and may ultimately justify the occasional employment of total colectomy among the pre-insane if the therapeutic results continue to be favorable.

The most careful pre-operative studies in differential diagnosis are, of course, just as necessary among psychotics as in the case of any patient suspected of having an abdominal lesion. A very important point, and one sure to carry special weight with surgeons, is that *the psychosis should be disregarded and the cause for it sought*. In the light of modern studies the psychosis is a terminal condition, a "symptom" as Dr. Work has said, and as we consider it—the end-result of a long-continued chronic infection. Just because a patient presents certain psychotic symptoms, there is no possible excuse for the denial of a thorough medical survey. The open-minded thoroughness with which this work is done upon all new cases admitted to the State Hospital at Trenton is the simple explanation of the satisfactory results obtained. I cannot speak for the rest of the profession, but as a surgeon I was brought up to consider the insane as creatures apart from the rest of us, a position due, partly, as Dr. Cotton says, to the "hereditary fear of the insane," partly to the fact that being unversed in the involved nomenclature of psychiatry, it seemed a forbidden and uninviting field to the surgical outsider. Now, this has been changed; retrospect gives way to prospect and we have come to look upon the psychosis simply as an incident in a medico-surgical syndrome requiring usually only the ordinary modern methods for its solution. Is there any justification for the existing practice of locking a patient up without a physical survey, because of a psychosis which can so often be shown to be of toxic origin?

This is not meant in any spirit of hostile criticism of the psychiatrists, but rather of the unsatisfactory general attitude of the profession, which has set the psychiatrist apart from the rest of us, denying him the aid which he should receive in the proper diagnosis and treatment of his patients. It is thus a brief for the application of the group practice of medicine to psychiatry.

As a result of the diagnostic survey of the patients admitted to the State Hospital at Trenton, the average being 75 per month, one-half as stated are classed as toxic psychotics. This represents the residue, after deducting the arteriosclerotics, the senile, and the paretics. Of the toxic psychotics, 20 per cent. are proven by history, by X-ray and by physical examination to have well defined lesions of the lower gastrointestinal tract. Since a large percentage of these patients come as voluntary commitments from intelligent families it is evident that, except

among the most indigent and ignorant, there has been a concerted though futile attempt on the part of competent family physicians, to treat these people medically, and occasionally surgically. Satterlee has shown 25 per cent. of previous appendectomies in a large group of non-institutional chronic intestinal invalids. Most of them have been "nervous invalids" for years. It convinces one that there is no neurosis, neurasthenia, psychosis, without physical cause. In the great majority of cases there is a history of obstinate and persistent constipation; many of the patients having had to take purgatives since infancy. It is an actual fact that a startling number of them have never had a normal movement of the bowels. On the other hand a small but definite number have presented the clinical evidence of diarrhoea, this being alternated frequently by attacks of constipation, important evidence of gastro-intestinal pathology.

At the time of undertaking these researches into the possible relationships of the so-called functional psychosis, to gastro-intestinal pathology, three years ago, the surgical work was influenced by the then prevalent ideas of "stasis" and "drainage." It was, therefore, natural that certain minor procedures, such as colostomy, ileostomy or even appendicostomy, might be considered of assistance in controlling the psychosis. It was soon found, however, that, if helpful at all, the results were transitory, due, as afterward discovered, to the fact that the bowel wall itself had, in these advanced cases, become established as a well defined and extremely potent local focus of infection. Resection of the right side therefore became the established practice. Somewhat later the sigmoid was resected, either in conjunction with the right-sided work, or alone, and in all cases, at this time, the internal and external sphincters were cut radially and posteriorly. This simple procedure should be mentioned, in passing, as being indicated, in our opinion, in all cases of partial resection. It is often important to utilize it as a preliminary procedure, because in a small percentage of cases, evidently where the bowel itself has not undergone severe segmental infection, it has served a very valuable purpose in arresting the constipation and improving the psychosis. It should never be done, however, if the perineum is torn, or if total colectomy may have to be practiced later on, as it probably throws control of the bowel functions upon sphincters established in the upper rectum or lower sigmoid, which might be impaired by the more radical procedure.

On reviewing this work it was decided about a year ago that in cases showing evidence of both right and left-sided involvement it would be far better to practice total colectomy. This has now been done twenty-nine times, and it is evident that when indicated it is the operation of choice. In cases where no improvement occurred after removal of the right side, abundant pathology was often found on the left side, showing the

difficulty of determining the condition of the colon wall even with the belly open.

Constipation, or "stasis" is unquestionably not the primary consideration in discussing intestinal toxemia; it is a result rather than a cause. This follows very definitely upon a consideration of the source of the toxemia which originates in the bowel. It may arise from one or all of three sources, first, from the putrefactive products of food proteins; second, from an alteration in the normal secretions of the intestinal epithelium itself, as demonstrated in our animal experiments on intestinal obstruction and, as shown in the final paper by Eisberg in the December issue of the *Annals of Surgery*; third, and perhaps most important, from direct bacterial invasion of the bowel wall itself. These laboratory findings are supported clinically. In some cases resection of the damaged bowel segment was not followed by disappearance or arrest of the mental symptoms until the administration of an anti-streptococcus and anti-colon serum, and *vice versa*, the administration of an antiserum alone did not produce any beneficial results; and recovery followed only upon resection. This is presumptive evidence of variation in the type and origin of the toxemia. In the more favorable cases, where the infection was limited to a small area in the bowel, all of which was resected, recovery often followed without the administration of serum. It is convenient and necessary to have a framework upon which to build and we have found these premises useful as such.

Damage to the bowel, primarily to the mucosa, is doubtless essential for the absorption of these toxins. This is often caused by bands arising either from devascularization and contracture of right, or left-sided pericolic membranes or from right or left omental bands becoming adherent to the abdominal gutters. The delicate epithelium of the bowel is evidently easily injured by such bands, and there is much evidence accumulating to show that the most important result of such injury is the breaking down of the bacterio-toxic barrier which the epithelium normally interposes between the lumen of the bowel and the body cavity. The gut segment so damaged, thereafter constitutes a local focus of infection, the importance of which cannot be over-estimated. This also, undoubtedly, explains the unfortunate experience common to all surgeons that a separation or breaking down of the intra-abdominal adhesions gives only transient improvement. The adhesions reform because the local focus causing them has not been removed. Traumatism has little or no bearing upon the condition.

"Stasis" or constipation is only a symptom of the underlying pathology, and, as such, is probably a protective effort. In the complex relationship of structure to function no change can be made in either without resulting disturbance of the delicate balance which we have come to look upon as normal health. Because of our

failure to appreciate this law we have in the past too often attempted to cure the patient by interfering with symptoms, the protective value of which was masked by secondary symptoms of purely minor importance. I refer to the middle-some treatment of fever, of increased blood pressure, of vomiting, of diarrhoea, of disability, and primarily of *pain*, without seeking an interpretation as to their value and their cause. Though less easy to comprehend, it is highly probable that constipation is in some way a protective effort on the part of nature. At all events, Satterlee has demonstrated that the most extreme forms of chronic colonic toxemia may co-exist with normality of bowel function, or even with diarrhoea; so we must get away from the idea of "stasis" as a basic factor and substitute for it the broader viewpoint that the damaged, leaking bowel segment is the causative lesion, the "stasis" being a relatively unimportant symptom. As a result of the "stasis," however, undoubtedly the toxic products are more easily absorbed, and probably additional ones are generated. It is an evil part of a protective cycle.

The best index of the condition of the bowel and its epithelium is the presence or absence of the enlarged mesenteric glands opposite it. The integrity of the bowel epithelium is as important to the health of the patient as is that of the kidney.

Gastro-intestinal invalidism, with its multitude of correlated symptoms, all of which are protective but which must also be deleterious because of interference with the above noted law, is the result, in plain language, of the leakage through a damaged epithelium of bacteria and their toxins, together with unidentified metabolic toxins of obstruction and often of protein food derivatives, into the vascular and lymphatic systems. Depending probably upon the specificity of these lethal agents of bacterial origin, different groups of tissue are attacked with resulting dispersion of symptomatology.

The hypothesis of specificity among pathogenic bacteria and their toxins has met with general acceptance as regards the heart, kidney, joints, etc.; but as yet, it remains to be proven for the brain, ganglia and nerves. Difficult of direct bacteriological proof, it is encouraging that much clinical evidence is accumulating regarding this moot point. For the laboratory is not the only source of medical truths. More than one thousand patients, at the Trenton State Hospital have been treated during the last three years for the relief of the toxic psychoses and discharged from the hospital. Treatment has consisted in an attempt to detoxicate through the elimination of focal infections by standard methods. Forty-three have been returned to the hospital, and of this number twenty left shortly after removal of local foci which had been accidentally overlooked. All of these patients had presented on admission laboratory and clinical evidence of the presence of strep-

toeococci and colon bacillus, local foci of infection in conjunction with a psychosis. As similar foci are well known to exist among chronic invalids at large without a psychosis it seems probable that as physical observations upon the psychotic type increase, it will be conceded that, although there is no morphological or functional difference as yet discernible between the focal bacterial units of the arthritic group on the one hand, the toxic psychotic group on the other hand, ultimately there will be found to exist as definite a specificity in the latter group as is now generally accepted in the former. The entire question of specificity though intimately related to Cotton's theory of the causation of the so-called "functional" psychoses, is by no means a *sine qua non* for its general acceptance but rather an interesting side problem, which can be studied along with the general problem of the insane, and the even greater problem of gastro-intestinal invalidism.

SUMMARY

1. The colon, in whole or in part, is occasionally an important local focus which may stand in causative relationship to the toxic psychoses.

2. The toxic psychotic patient should be intensively studied by the medical group method; particularly for the discovery and removal of local foci of infection; and treatment should be both surgical and medical.

3. The toxic psychoses even when well-established can be arrested in over 65 per cent. of cases if the proper surgical and medical work is done before deterioration has rendered the condition incurable. Prevention of the psychosis will follow early recognition and eradication of the toxemia.

4. Intestinal toxemia is a triad originating in food proteins, in perversion of the intestinal epithelium, in streptococcus and *B. coli* invasion of the bowel wall,—one or all. In 20 per cent. of the toxic psychotics it stands in important causative relation to the mental symptoms.

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A PLEA FOR ROUTINE EXAMINATION UPON THE OPERATING TABLE UNDER ANAESTHESIA AS A PRELIMINARY TO ABDOMINAL OPERATIONS.*

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WHOSOEVER may have observed the modern trend to subdivide the practice of medicine into numerous specialties must admit that it has many advantages, yet, such a thoughtful ob-

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server must admit also that it is attended with a number of evils.

We Americans the world over are characterized as hustlers, we appear always to be in a hurry. The mad rush for quantity production in the business world, which, we must acknowledge, has developed efficient and large business organizations, should not be applied to the care of the sick.

It was but natural that the methods of practicing medicine should be molded and modified by our contact with this prevailing spirit in business.

Not only is it desirable, but vitally essential that we allow sentiment to enter into the practice of physic, because it is impossible to eliminate the human element in the care of the injured and the ill.

If we but take the hospitals of this country, by and large, as organized to-day, we shall note the small amount of time the attending surgeon devotes to his examination and to the acquisition of personal knowledge of the patient upon whom he is about to operate.

How much consideration does he give to the diagnosis of the ailment and how much to the selection of the most preferable operative procedure to be employed?

One may take at random a large clinic in any sizable city and if the whole truth were known, we will find that the history was taken and the urine, blood and physical examinations were made by different persons, and, moreover, the results of their work were hastily correlated by some assistant, or house surgeon.

Many times we have noted that the surgeon saw his patient for the first time when anaesthetized and ready for operation. He then had the history read and the probable diagnosis arrived at by his assistants.

Even then he seldom takes the time to make a careful physical examination, including bimanual, vaginal and rectal examinations, because it is time consuming; and yet how often the lack of this study of the case has led the surgeon far afield, and, at times, with disastrous results to his patient.

I have in mind an operation witnessed a short time since, where a very competent surgeon had a patient on the table with a diagnosis made for him of carcinoma of the pelvic colon. The x-ray plate that was exhibited showed a filling defect which the radiologist said was due in all probability to a malignant growth. The operator described the method of resection of the intestine, which he would in all likelihood adopt.

If he had devoted a few minutes only to a combined abdominal, vaginal and rectal examination, he would have learned that he was dealing with a uterus with several fibroid tumors, together with pus tubes, and would have had a clearer idea of how to attack the pathology present, through the abdominal incision.

He was so certain of finding a malignant growth that he ruptured a pus tube and thereby spread the pus among the coils of intestine and for a time was at a loss to realize the exact condition of affairs and consequently he did a rather inferior operation.

We find in another patient operated upon by an equally eminent surgeon that the roentgenologist made a diagnosis of diaphragmatic hernia; the plate, however, was not very clear, as the barium shadow of the intestine interfered with a distinct outline of the left diaphragm.

A competent internist, obsessed with the diagnosis made by the radiologist, thought he heard succussion sounds and a tympanitic note in the chest.

When the surgeon excised eight inches of a rib and opened the pleural cavity, he found there was no evidence, by ocular inspection, of an opening in the diaphragm; hence there was no subdiaphragmatic hernia.

If the surgeon had not depended in so large a measure upon his associates and had examined the chest himself by auscultation and percussion, and had pointed out to the roentgenologist that it would be desirable to obtain a clearer radiograph, I doubt if he would have fallen into the error of performing this unnecessary operation.

In another city, a surgeon with a national reputation, well deserved, opened the abdomen of a girl sixteen years old, because the house surgeon had made a diagnosis of gastric ulcer, which diagnosis was based solely upon the history of the patient and the examination of the stomach contents.

A thorough exploration of the abdominal viscera revealed nothing abnormal. Is it not fair to presume that this child will suffer from abdominal disturbances?

Why should not the surgeon possess a more definite individual knowledge of each and every case, and while evaluating, place less dependence upon the findings of subordinates?

Apparently the reason why the above mentioned time-consuming practice is not followed more closely is the tendency of modern surgery toward quantity production.

One who has not been in the habit of making routine examinations of the abdominal contents with the patient anaesthetized, will be surprised to find the frequency with which his diagnosis can be improved upon or clarified.

It is my custom to have the patient placed in the lithotomy position, the thighs flexed upon the body and the feet placed in stirrups or held by assistants. The pubes, vulva and vagina are scrubbed with liquid soap and water and flushed with a one to two thousand bichloride of mercury solution.

The patient is then catheterized, as it has been found, occasionally, that the nurse may have omitted to have the patient pass urine just previous to going to the operating room and also it is a well known fact that some patients se-

crete a large amount of urine during anaesthesia.

Just how many times the bladder has been opened needlessly, no one will ever know, but this error is always due to the failure of the surgeon to definitely realize that the bladder was distended.

The abdomen is now carefully examined by palpation and percussion, followed by a combined vaginal, abdominal and rectal-abdominal palpation.

The whole procedure may take five minutes, but it is time well expended, as the operator has then a clear idea of the size, location, mobility and characteristics of a growth if present, and if a growth is to be removed, can then decide whether the vaginal or abdominal route is the more preferable.

He may even by these methods of examination conclude that medical treatment, rather than surgical, would be most helpful to the patient.

Routine examination under anaesthesia, preliminary to abdominal operations I cannot advocate too vigorously.

Make a practice of these procedures in every case and judge for yourself whether you do not find them advantageous and beneficial to your patient during the operation.

Unquestionably, the division of labor has numerous advantages and the concentration of effort upon one subject has made for progress in medicine.

When you consider the men of the past who have advanced our knowledge of the various specialties, you will find that most of them were general practitioners of medicine and undertook the intensive study of some specialty, only after a prolonged experience in the treatment of the sick. This valuable knowledge as being of the very fabric of their minds they daily employed when practising in their limited field of work.

We find that the tendency of the day is for one to become a specialist with very little effort, study and time to perfect himself. A few months at a post graduate school and that, too, with scarcely any knowledge of the general practice of medicine, outside of their meagre hospital experience, is the extent of this inadequate training.

The result of such insufficient preparation we observe in the frequency with which the important lesion from which the patient is suffering is overlooked, as the narrow vision of the specialist prevents him from seeing beyond his contracted field.

Are we not over-specializing? As thoughtful observers, should we not ever look upon the complex human body as a single entity, with its multifarious structures, brain, nerves, heart, blood-vessels, glands, teeth, etc., so carefully adjusted and attuned to work in harmony, one with the other?

A few men gifted with foresight, realizing the necessity of taking advantage of modern scientific work and desirous of utilizing the labor, experiences and opinions of others, have established groups of medical men, trained in the various specialties, to work together.

In order to have a group function properly, its members must first of all be men of character, who are willing to work in harmony with one another, and who are willing to give of themselves unselfishly for the advancement of the science of medicine and the welfare of their patients.

A daily conference of the group should be held and the opinions of the members discussed and analyzed. The member with the largest experience and most logical mind should correlate all of the information, make the diagnosis and outline the treatment and advice to be given to the patient.

This type of group can and will help to advance the progress of medicine in this country; but the general practitioner should and shall always find valuable work to accomplish.

There are groups of medical men to-day who merely have offices in the same building and agree to refer patients from one member of the group to another.

These bodies, not founded fundamentally for the welfare of the patient, will prove to be a detriment to the advance of medicine in the community wherein they practise.

The public to-day is so impressed with the word specialist that many no longer consult the good old family doctor, but select this or that specialist, even the x-ray specialist, for a diagnosis. Is this the most desirable procedure on their part? Decidedly it is not. While radiography many times gives us very valuable information, how often do we, on the other hand, find the results of this study misleading?

When shall we have definitely impressed upon our minds that the x-ray plate reveals to us a shadow superimposed upon shadows and that these shadows may be interpreted with great difficulty or not at all? Should we not employ the x-ray only as an adjunct to diagnosis?

The surgeon who is to operate, should himself first make a careful examination and study of the complete history of the patient and then evaluate with the radiologist his findings.

But someone will say, how is the busy surgeon to find the time for all this labor? I would answer, that first and foremost he should have the welfare of his patient at heart and that it would be better for his clientele if he did fewer operations in a day, paid more attention to a thorough study of the individual, his personal characteristics and his ailments, more to the performance of a skillful operation and less to the work of subordinates, who often unintentionally give him misleading information.

In contrast to the hurry which infects us all to-day, let us pause to reflect upon the leisurely

work of one of our predecessors; allow me, for a moment, to dwell upon the activities of one of the pioneers in gynecology and abdominal surgery, namely, Dr. Gilman Kimball, of Lowell, Massachusetts.

A glance at his portrait reveals the spirit and character of the man. The massive head, the broad brow, the keen eye, the thin and compressed lips and the determined expression of his countenance, all go to prove that he was a man of power, strongly impressed with the courage of his convictions.

Born in the obscure village of New Chester, New Hampshire, in 1804, he ultimately attained an international reputation for his skill in the removal of ovarian tumors. His father was a merchant in the village, and though probably not rich, he yet stamped upon his son a quality, invaluable at any time, which we know as character.

The subject of our sketch studied with the elder Doctor Edward Reynolds of Boston and received his degree of Doctor of Medicine from Dartmouth in 1826.

He practised in Chicopee, Massachusetts, for two years and then spent a year in study at Paris, where he was fortunate in having an opportunity at the Hotel Dieu to follow the instructions of Baron Dupeyren, who was considered the foremost teacher of surgery in Europe. It was at this period that he acquired confidence in himself and inspiration from this master mind which later he was to use to advantage in his pioneer work in this country.

We find him in 1830 settled in Lowell, Massachusetts, in a town of less than twenty thousand inhabitants, where he practised until his death, which occurred in 1892. During 1842 he succeeded Dr. Willard Parker as professor of surgery at the medical college at Woodstock, Vermont, and one year later he occupied a similar position at the Berkshire Medical Institute at Pittsfield, Massachusetts.

Surgery has been the loser by the passing away of these peripatetic teachers of medicine, as there are many factors in favor of this ancient custom.

It is possible that we may again, some day, revert to this method of inspiring young men by having the masters in medicine lecture as exchange professors in the various universities.

During the Civil War, Doctor Kimball superintended the organization of the first military hospitals established for the sick and wounded of the Union Army and, after a year of service, he was retired on account of his having contracted malaria.

As early as 1855 he operated for the removal of an ovarian tumor and gained a world-wide reputation for the skill which he achieved in this type of surgery.

We must remember that at this period the operation was considered by many to be unjustifiable.

The pathway of Doctor Kimball in his advocacy of the removal of ovarian tumors was not strewn with roses, as we may note in an article published in the *BOSTON MEDICAL AND SURGICAL JOURNAL* Sept. 22, 1864, when the editor quotes from the *American Medical Times*, as follows:

"I may further urge in my own behalf as well as that of my surgical brethren generally; That the diagnosis in the majority of cases of ovarian disease is very obscure and that the prognosis is to the same extent doubtful, if not unfavorable.

That many females carry these tumors through a long life with comparatively little inconvenience, that in many cases they actually diminish in size, while the inconveniences attending them often nearly disappear.

That the most favorable statistics show that nothing is gained on the whole as regards the prolongation of life by the operation, for it is found that taking an equal number of females affected with ovarian tumors of equal ages and under as nearly as possible similar circumstances, the average duration of life will be greater in those on whom the operation has not been performed, than in those who have submitted to it, so that statistics in fact condemn the operation as unjustifiable.

In all the other great operations the surgeon has no misgivings; he is laid as it were under duress, as Prof. Meigs would say, to operate if circumstances required and he has no severe qualms of conscience should the case prove afterwards fatal.

Far otherwise, however, must it be with every properly constituted mind, when a fatal result attends an operation regarded as wholly unjustifiable by the highest authorities in surgery and by nine-tenths of the profession generally.

From what has been offered, it may safely and justly be inferred that our principal surgeons do not envy the professional reputation acquired by the operation in question; they do themselves honor by showing that they have studied ethics in a wider school, and that they prefer peace of mind and a good conscience, to transient notoriety and pecuniary rewards."

On January 24, 1864, Doctor Kimball calls attention to the *BOSTON MEDICAL AND SURGICAL JOURNAL* in which appeared a quotation of Doctor Warren which said that he could not recall a single instance in Boston of a fortunate termination of this operation, namely, removal of an ovarian tumor.

Doctor Kimball points out that his first three cases operated upon in Boston, terminated successfully, and that the fourth case an unsuccessful one, he had reported the previous December.

He was called as a consultant and operated throughout New England and had the happy privilege of living long enough to see the prejudices and opposition to this operation disappear

and to receive the approbation of surgeons both at home and abroad.

I am indebted to Doctor John W. Mitchell, late of Providence, for the following report of a case for the removal of an ovarian tumor; a large unilocular cyst, wherein he had assisted Doctor Kimball at an operation, which took place in a farm house located several miles from Providence.

Doctor Kimball arrived two days before the day set for the operation, and lived at the farm house where he could examine his patient, observe her general condition, and carry out the preliminary medical treatment and make the necessary preparations for the operation.

The kitchen table served as an operating table and the wash boiler provided an abundance of sterile water. The instruments were washed in hot water, dried and placed upon a clean towel. The doctors scrubbed their hands and forearms with soap and water. When the patient was etherized, her abdomen was washed with soap and water and clean towels were placed about the field of operation.

Doctor Kimball then made an incision about four inches long between the umbilicus and pubes. The cyst, which presented in the wound, was pierced with a large trocar, and after a gallon of its contents was removed, the cyst was drawn from the abdominal cavity and the pedicle transfixed and ligated with double stout silk. The tumor was then severed distal to the ligature and the stump of the pedicle and the ends of the ligatures were fixed in the lower angle of the wound.

The wound was closed with interrupted silk sutures which included all the abdominal layers.

The dressing consisted of the application of lint, adhesive plaster and a cotton cloth binder.

Morphia grains 1/3 was administered and repeated at intervals. Liquid nourishment and some alcoholic stimulant, usually rum, was given early and often. A rectal tube was employed to relieve the patient of flatus and enemas also assisted in the recovery. The silk ligatures came away about the seventh day, and the patient made an excellent recovery. The wound healed about the fourth week.

Doctor Kimball remained at the house of his patient for two days following the operation and left when he considered that she was progressing favorably, and gave to Doctor Mitchell the after care of the case.

Doctor Kimball was possessed of a logical mind and honesty of purpose, always firm in his convictions when confident that he was right. He contributed in a large measure to the progress of surgery, both in this country and abroad.

In conclusion, I would emphasize the value of routine examinations under anaesthesia upon the operating table, preliminary to abdominal operations;

The necessity of a period to be spent in the general practice of medicine previous to becoming a specialist;

That we consider the human body as a moving equilibrium; in brief, as a living unitary organism;

The desirability of the masters in medicine becoming peripatetic and lecturing as exchange professors in the various universities;

And above all, the importance of remembering that careful work demands time and personal attention to those multifarious details which modern medicine requires.

TWO UNUSUAL CASES OF INJURY TO THE TIBIAL TUBERCLE

By JAMES WARREN SEVER, M.D., BOSTON.

The purpose of this paper is to report two unusual cases of injury to the tibial tubercle—one acute, and one of many years' duration.

In spite of the fact that since Osgood¹ and Schlatter² in separate articles in 1903 called attention to this bony protuberance which serves as a point of attachment of the patella tendon, its liability to injury from direct and indirect violence has been frequently overlooked and the symptoms of such trauma misinterpreted.

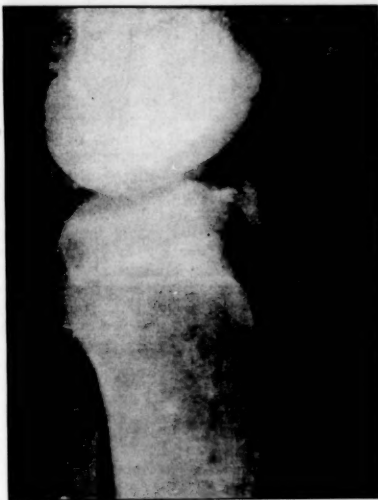
Since then a number of authors have reported one or more cases of injury to this epiphysis, and others have shown by X-rays that an accurate diagnosis of separation of this bony beak can be determined only by a careful comparison of both tibiae. Many cases have been reported, which demonstrate by the X-rays shown, that a normal epiphysis has been mistaken for an abnormal or separated one. The best way to avoid such an error is always to compare the two sides.

Pain, tenderness, and swelling over the tibial tubercle do not always mean a separation of the epiphysis, unless demonstrated by X-rays of both legs. Bursitis of the deep pretibial bursa (Lovett³), superficial bursitis, or housemaid's knee, may both simulate the condition, as well as an epiphyseal strain or slip, not however demonstrable by the X-rays.

The condition of ordinary strain of the epiphyseal line at this point is not infrequently met with, and under ordinary circumstances easily dealt with by strapping, or in the more persistent cases, by a ham splint. To my mind, operation on the tubercle for fixation of the epiphyseal beak to the crest of the tibia is unnecessary in the vast majority of cases, as a cure can be established quite as well in about the same length of time by non-operative methods. Bone grafting⁴ and pegging for this condition are needless, and while they may require good operating, it is poor surgery. This applies to the ordinary and average run of cases.

If the normal development of the tibial beak is borne in mind, it will be remembered that it unites with the shaft of the tibia at about the 14th or 15th year, and is usually firmly united and continuous with it at about the 18th year. In the years before the 14th or 15th while the epiphyseal center is developing, and is surrounded by cartilage, many apparent lesions are shown by X-ray examination, such as evulsion, fractures, single and double centers of ossification, or no centers at all. With symptoms under these conditions it would be natural to interpret the X-ray as showing a lesion. Without symptoms the condition would be called normal and developmental. Hence, due care should be used.⁵

The two cases which follow are, however, out of the average run of cases, and both required operation for relief of their condition.



CASE 1. X-ray No. 1. January 12, 1920. One week after injury. Note complete separation of tibial beak with line of fracture extending into knee joint.

Case I.—See X-ray Nos. 1—2—3.

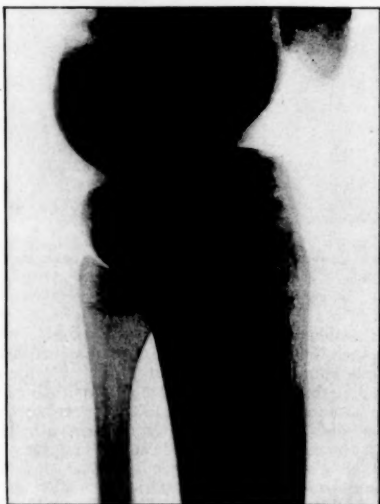
This boy, age about 16, injured his left knee in the following manner in January, 1920: While running and about to "take off" for a running high jump, he felt something give in the knee, and he collapsed. He suffered great pain and the knee swelled a great deal. He was removed to a near-by hospital, and the leg put on a splint. I saw him the next day, at which time the leg was greatly swollen, the knee joint distended with fluid, evidently blood, and the skin ecchymotic. He was very tall and heavily muscled for his age.



CASE 1. X-ray No. 2. February, 1920. Four weeks after replacement and suture.



CASE 2. X-ray No. 4. August 2, 1921. Preoperative—note loose fragment of tibial tubercle—right knee.



CASE 1. X-ray No. 3. Normal right leg of same case for comparison.



CASE 2. X-ray No. 5. August 2, 1921. Left knee showing normal epiphysis.

The X-Ray showed what had happened. See X-ray No. 1. The act of jumping, with knee partially flexed, the muscles long and heavy, becoming suddenly forcibly contracted to lift his weight, proved too much for the tibial tubercle, which even at his age had apparently become firmly attached to the tibia. The tibial tubercle pulled off, the fracture extending into the knee joint. The tubercle remained at an angle of almost 35° to 40° to the tibia, and could be felt projecting under the skin. After ten days' rest in bed on a splint, and with an ice bag to the knee, he was operated on through a vertical incision over the epiphysis. The bony fragment was found projecting as shown in the X-ray, was easily pressed back into its bed and held in place by a heavy mattress suture of kangaroo tendon. He made an uninterrupted convalescence, and the X-ray (see X-ray No. 2) taken four weeks later shows the post-operative result. X-ray No. 3 shows the normal epiphysis of the other leg. Three months after operation his leg was practically normal, and he was back in school with normal function at the knee.

This case is rare, and Rhodes⁶ states that only nine other cases have been reported besides one which he reports, and shows an X-ray of, which, from the X-ray point of view, looks like a normal epiphyseal beak.

Case II.—Man, age 22.

This individual, who was tall and well developed, gave a history of having injured his knee when about seven years of age. Ever since that time he has had trouble off and on with the knee. The condition recently has become more acute, especially as he is a runner and hurdler in college, and it has interfered with this type of activity a good deal.

He has had pain, disability, and swelling in the region of the tibial tubercle following any attempts to use the leg freely, and the condition and discomfort have been increasing recently. He came because of this disability and wanted relief.

The examination showed that the tubercle of the tibia on the affected side was much larger than that on the so-called normal side, but both were much more prominent than usual. There was distinct grating on motion felt over the tubercle on the affected side, accompanied by pain and discomfort.

The X-ray shows (see X-ray No. 4) that there had been a fragment of the tubercle separated at some time, and which was apparently adherent to the under side of the patella tendon. Any motion of the knee, therefore, in flexion or extension caused this fragment to rub up and down on the crest of the tibia and cause constant irritation.

This fragment was removed at operation, and was found to consist of bone adherent to the under side of the patella tendon. The patient made a perfect recovery and several months later was able to go back to running and hurd-

ling without any discomfort or return of his former symptoms.

In conclusion I would emphasize that the types of cases reported above are the only ones which really need operative procedures.

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ARTHROPLASTY OF THE ELBOW JOINT: A POINT OF VIEW.

BY HAROLD C. BEAN, M.D., BOSTON

NUMEROUS reports have appeared in the current medical periodicals during the last decade and a half which, with very few exceptions, have decidedly favored this operation as a substitute for excision or ankylosis. In a review of these papers, and in an attempt to favor conservatism, allow me to present this résumé in the nature of a brief for discussion. Such a brief may read as follows:

Although, with few exceptions, favorable reports have been made by divers surgeons concerning arthroplasties of the elbow joint, and although this joint affords a unique site for experimentation, we must consider well the patient's anatomical, mental, social, occupational, and financial status before undertaking a procedure of which we can give no definite pre-operative assurance of success; such success being that end-result which, in the patient's opinion, is considered worth the pain, the time, and the finances necessary for that end-result.

This review is not meant to be a treatise on the operative procedure as much as a viewpoint in the discussion of the end-results of this particular arthroplasty and of other arthroplasties in so far as they are allied. Beginning with the first year of this century a large number of reports were available, the majority of which claimed favorable end-results; that is, useful arms. In these cases the immediate cause of the ankylosis did not seem to contra-indicate an attempt at arthroplasty, although tuberculosis which had not been quiescent for several years or which gave evidence of any great amount of bone destruction was not considered a favorable site for such an operation. Several have been done with a few good results; very few, in fact, in comparison with the total number reported from all causes. Among these causes were mentioned a great number of gonorrheal arthritides, almost an equal size collection of cases from infectious processes, mono- and polyarthritides to a less extent, and some ankyloses caused by fractures into the joint which have failed to function after reposition. The best results were obtained from the last group, while bony ankylosis offered a better prognosis than a fibrous fixation.

Without doubt the elbow articulation is a favorable site for attempt at arthroplasties, for no matter what the end-result may be, reankylosis, little or free stable motion, or unstable motion,—sepsis and osteomyelitis excepted—there remains, at least an equally serviceable arm. It is indeed an experimentation, because even though arthroplasties of some kind have been performed since Verneriel first used a flap of muscle and fascia in 1860, each individual case has been necessarily a matter of supposition as to just how much improvement in function one will gain over nature's method of splinting.

In general, the same factors which determine the advisability of operation upon other joints hold good in this particular operation. In the first place the age at which such a procedure can best be undertaken is universally and obviously described as early adult life. Before the age of eighteen there is grave danger of interfering with the growth of the epiphysis, particularly in the removal of too much bone during the attempt to reform the joint surfaces. If very early in childhood, the normal growth of the bones thereafter will decrease the joint space and may cause reankylosis. If performed in late adult life the human tendency to bone formation and proliferation may upset all results obtained by operation. Tubby fixes his age limits at eighteen and thirty, but Putti allows a longer period, from twenty to fifty, this difference in limits being due perhaps to effects of race or climate on old age changes in bones and joints.

The general condition of the patient as well as the local manifestations must be dealt with in considering arthroplasties. A thin arm and elbow lacking the nutritional advantages of a robust individual is not a particularly good subject for a transplantation or fascia flap. However, Dr. Putti remarks upon the remarkably quick recovery of function in muscles which have been atrophied from disuse for several years. Whether such a phenomenon is the usual occurrence in this and allied conditions I am not prepared to say.

The intelligence of the individual, both in relation to his own exertions and his co-operation with the surgeon, must be of a high order,—at least, well above the ordinary; for in this operation, all other procedures being equal, the success is measured by the patient's own endeavors governed by his intelligence and persistency.

Some occupations are better served by an ankylosed elbow, some by a flail joint, rarely by a functioning joint. The reverse result may mean change of trade and even failure; whereas, if operation had not been attempted, there would have remained a useful member of society. Such tragedies must be considered carefully before proceeding with the operation and the long period of convalescence.

The individual concerned must be informed of the period of inactivity from work which is

necessary in all these cases, and his wishes granted. Even then his financial condition should be carefully gauged, for his enthusiasm may mask his better judgment or he may not be able to grasp the extent of his period of inactivity.

Various methods have been used to obtain mobility in the elbow joint. Foreign materials such as ivory pegs, magnesium sheets, wood, celluloid, gutta serena, and a mixture of yellow wax and lanolin have been tried at various periods with varying, and sometimes unfortunate, results. The most unfortunate experience was that of Hoffa, in 1906. He interposed a sheet of magnesium between the bones of the arm, which sheet created a gas and formed a persistent fistula. It became necessary to remove the sheet before the fistula would close.

Since 1900 the most common materials which have been used have been autogenous, that is cartilage, muscle, fat and fascia, the latter being the most universally accepted substance used at present. A few men have used animal membrane, chromotized or impregnated with silver, but their results have been generally poor. Baer himself obtained such poor results that he was led to believe that the elbow was the poorest joint as a site for arthroplasties. Allison and Brooks reported that the reaction in the joint following the use of chromotized membrane was so intense that adhesions between the granulating surfaces formed before the membrane had disintegrated.

Of the later materials used in this operation we have muscle, fat, and fascia flaps or transplants. It is conceded now that flaps have no advantages over free transplantations. Nelaton, Delbert, Berger and Kirmisson used flaps obtained from one of the various arm or forearm muscles; Schanz, and Hoffa, in addition to his unfortunate use of magnesium in one case, used fat flaps; while Murphy, Ritter, Whitman, Pourpoint, Putti, Turner, Ashhurst, Kerr, Brown, Ryerson, and many others have used with success pedunculated or free fascia. There does not appear to be any great differences obtained whether the fascia is cleared of all fat or not.

Again, several methods have been employed in exposing the joint in order to insert the material mentioned above. Ashhurst in 1915 reported five cases in which he made an incision along the external supracondylar ridge and detached the external condyle with an osteotome. After inserting his pedunculated flap he replaced the external condyle by means of a Lambotte's self-boring screw.

Ryerson uses a long posterior incision, avoiding the olecranon. He cuts the biceps tendon and removes a thin shell of bone from the external condyle upon which is attached the extensor muscles; also, a similar shell is removed from the internal condyle and the joint is dislocated.

It is not for me to criticize these methods, but it seems to me that the easiest and simplest ap-

proach is the best. Dr. W. R. MacAusland describes in detail a procedure which appears to fulfill these requirements.

A semicircular incision is made from the external to the internal condyle and a two inch flap is turned up. The ulnar nerve is found, dissected from its sheath and retracted mesially. A transverse incision is made extending through the periosteum at the level of the base of the olecranon. The olecranon is sawed through and with the flaps is turned back. The joint is then broken or sawed through and, after the capsule, fascia, and ligaments are dissected free, the lower end of the humerus is dislocated and brought into the wound. The edges are rounded off by a rongeur and a new trochlear surface is formed by the use of a small rasp. Next, a piece is removed from this surface corresponding to the olecranon fossa.

To insure good function the joint surfaces are fitted accurately before the fascia is applied. When the surfaces are completed a flap of fascia lata, freed of all fat and about six by five inches, is inserted over the condyles and is attached anteriorly to the capsule and posteriorly to the periosteum of the lower end of the shaft or the humerus by interrupted catgut sutures. Catgut is then wound twice loosely around the shaft just below the line of sutures.

The joint surfaces are then placed in apposition and the olecranon, from the joint side of which some bone has been removed, is held in place by a kangaroo tendon suture inserted through holes drilled in the olecranon and shaft of the ulna. The wound is then closed in layers, and, after a dry sterile dressing has been applied, the arm is encased in plaster in flexion beyond a right angle.

The only objection which can be raised to this method of approach lies in the question as to whether the arm can be safely placed in flexion after approximating the olecranon with kangaroo tendon. It seems like a confession of lack of faith in the operation not to be able to fix the arm in extension after operation, that is, as if the operator looked ahead with uncertainty to the period of manipulation and, therefore, left the arm in a favorable position for reankylosis if it should form.

Then comes the most important part of the operation, the after-treatment, and this varies somewhat with the whims of the operator. In general, passive and active motion, both governed definitely by the feeling of the patient, are begun in about ten days to two weeks. Later massage and then baking three or four times a week are instituted. Frequent X-rays should be taken in following along the bony changes within the joint. Manipulation under an anaesthetic may be necessary at times to regain lost motion, but if further operative means must be employed this should be delayed for three or four months.

Traction on the lower fragment is not con-

sidered necessary, due probably to the position of flexion in which the elbow is placed. I am unable to see why some traction in this position while the arm is in plaster would not prevent perhaps some of the post operative manipulations which are so often necessary, or why traction with the arm in extension would not be even better; thereby following out the method used by some in arthroplasties of the knee joint.

Professor Putti in his address in this city last spring reported an admirable paper, which I believe to be the last word in arthroplasty. In it he makes mention of an important feature of arthroplasties in general which bear repeating here. He says: "In the post-operative course of every arthroplasty there is a period which I should call *critical*; which sets in about a month after the operation, when the joint becomes somewhat painful and stiff. It is possible that during this period both the patient and surgeon have their doubts about the possibility of obtaining a good result. But in reality, there is no need for anxiety. The critical period is the usual consequence of the drying-up process of the joint and sometimes, also, of exaggerated exercise. The hot air treatment must be suspended for some days; after this the movements may be carefully and gradually resumed."

In mentioning prognosis with respect to arthroplasties he also states that it can only be judged after the lapse of a few years. In several reports it is noteworthy that the maximum range of motion after two or more years was, in some cases, markedly decreased from that of a few months to even a year. I believe the highest peak of proficiency in any given joint is reached when the patient is about to depart from under the control of the surgeon. There are few people who have the stamina to continue these routine exercises and treatments alone, in spite of many discouragements and lack of definite or appreciable improvements. In hospitals, charity patients soon lose their grip and drift away. In private practice such patients are hard to control. For this reason the subjects chosen for arthroplasty are necessarily few. If the field is broadened, admitting cases who, through lack of persistence, spoil the results of operation, we are bound to meet with reverses which will discourage us towards those few who are deserving of the attempt.

As in the practice of obstetrics, the Caesarean is essentially an operation of choice, so shall arthroplasty always remain to orthopedics. Again, may I say that arthroplasties should be to orthopedics as neurosurgical operations are to surgery,—superspecialties. It is only fair to the individual that, should he desire an arthroplasty, he should be assured of nearly one hundred per cent. chance for marked improvement. This cannot be done if the technique at operation is faulty, and every orthopedic surgeon cannot become trained in arthroplasties with a half dozen such cases a year.

I believe that orthopedics can be divided into three classes—mechanical, manipulative, and operative. We realize that some orthopedic surgeons are better prepared in one field than in the others. Arthroplasties belong strictly to the operative orthopedic surgeon, and, as such, should be left to his care.

As I have said above, after reading these reports I am not convinced as to the advisability of arthroplasty of the elbow joint. I agree with others that there are exceptions, the most important one being the arm which is ankylosed in extension. The papers which I read were reported by men who are undoubtedly excellent technicians in regard to operative technique. Their cases, in the majority, are successful. But will the results of all their successes overbalance the disappointments, even the crippling and loss of income, of the minority who were failures? Very often the man who needs an operation of this kind is just the one who fails miserably either from over-enthusiasm or extreme despondency because of the slow improvement. Several cases reported beginning with ankylosis in good position resulted in flail unstable joints.

Therefore, to conclude, may I say that because of the importance of the prerequisites, the length of time necessary for proper end-results, the lack of definite predictions as to the outcome, except in a very limited number of cases, I have yet to see the advantages of a few degrees of stable motion over an ankylosis in favorable flexion or an excision with a moderately flail joint.

THE NEED OF SANATORIUM TREATMENT OF TUBERCULOUS CHILDREN.*

By WALTER A. GRIFFIN, M.D., SHARON, MASS.

IN considering the need of sanatorium care of children, we are struck by two facts: one is the present paucity of accommodation as compared with accommodation for adults, and the other is the reported high rate of incidence of tuberculosis in children. Many writers have made mention of this latter point. Thus, Hamburger and Monti, in Vienna, are responsible for saying that 95 per cent. of children between the ages of twelve and thirteen years who came to autopsy showed infection with the tubercle bacillus. Garrahan¹ examined 1,214 children between the ages of two and sixteen and found 75 per cent., between the ages of fourteen and sixteen, probably affected with tubercle, although apparently all of these children appeared healthy. Brenner² examined 114 children and considered 65 per cent. positively tubercular, as revealed by x-ray examination. We have to take his further word, however, that only three of

these showed definite pulmonary signs. Hess³ found over one-third of the homes represented by children at the Preventorium in Farmingdale had infants under two years in close contact with tubercular parents. Ayres,⁴ in his book on "Open Air Schools," considered that out of 90,000 Boston school children, 4,489, or nearly 5 per cent., needed special open-air school and, as Kingsley⁵ says, "If 2 per cent. all over the country should need such care, 400,000 would need it." Finally, the annual report of the City of Chicago Municipal Tuberculosis Sanitarium makes mention in one place that there are more than 13,000 children under sixteen years of age registered in the tuberculosis dispensary, and 9,000 of this number have been diagnosed tuberculous. These figures are certainly startling and would indicate that almost any large city in the country could furnish enough children with tuberculosis to fill all of the existing tuberculosis sanatoria in the land. Further, if these observers are anyway near the truth in their deduction, there is a tremendous incidence of childhood tuberculosis. In fact, many have said it is probable that everyone in civilized communities is affected with tuberculosis by the age of twenty-five.

In compiling such statistics, it becomes necessary to know what signs and symptoms have been considered by these writers of sufficient weight to warrant the diagnosis. Even a question of doubt may arise as to the sureness of tuberculosis being present in a number of the investigations. We find that some of the observers rely on history alone, and, according to their reasoning, an infant in close relationship with a case of tuberculosis becomes necessarily tuberculous. Others are sure that they may detect by physical examination whether or no the tracheo-bronchial glands are enlarged, and if they are enlarged, by such findings they are considered to be tuberculous. Not all examiners will agree to this, nor to the assertion of other observers that x-ray examinations disclose such great numbers of tubercular glands within the chest. Those cases that are diagnosed by the aid of tuberculin are probably correct, but, unfortunately, any tuberculin reaction does not tell us whether an active disease condition is present or not, and, therefore, whether immediate treatment should be instituted. In fact, in many cases mention is made of the healthy appearance of the children so tested. Those cases that are found at autopsy have died, usually, of some intercurrent disease, and the focus of tuberculosis is usually limited to small, well-walled-off glands. Finally, we have always to bear in mind that infection with tuberculosis, and tubercular disease resulting from such infection, are two quite different things.

Unfortunately, there are many among the laity who are far from willing to admit, from the evidence cited, that the erection and costly maintenance of institutions for children are warranted,

*Read before the American Sanatorium Association at Middleton, Mass., December 3, 1921.

and amongst the profession there are many more "doubting Thomases." Therefore, even though we may be positive that the number of children who have tuberculosis is enormously large, and the number who show a potential possibility of becoming diseased is also very great, it will be very probable that an exceedingly minimal number will ever come to institutional care.

As a matter of fact, but few preventoria are available for the care of children. Up to within recent times all of the attention has been given to building institutions for the care of adults, and this is natural enough, since a diagnosis of tuberculosis in adult life is exceedingly easy compared with the diagnosis of the disease in childhood. It becomes necessary, then, to judge whether, in the first place, enough definite diagnoses can be made to warrant the providing of institutions for the care of children, or whether it is wise, after all, to wait for a definite diagnosis but to give the advantages of institutional care to those children who may have received a probable chance of infection in family life, or who may have certain signs and symptoms which might lead one to imagine they were already infected and, possibly, coming to a stage of disease. However, because of the exceedingly brilliant results which can be brought forward to help statistics of institutional care and to gratify both parents and physicians, there may be a danger of emphasizing too strongly this latter point and so to fill preventoria with children who are undernourished and anemic but who really could not be said to have definite tuberculosis. It is always gratifying to effect a cure, but to treat a patient for weeks, months or years, and finally to say condition merely "improved," is exceedingly dampening to one's enthusiasm. On the other hand, if it can be proved, by any method of diagnosis at present obtainable or afterwards to be devised, that these same undernourished, weakly children are definitely tubercular, and not merely potentially so, the establishment of preventoria would certainly have justified expenditure of whatever money and time may be necessary.

The problem may be viewed, however, from a more definite basis. We are likely to give much credence to the investigation of Chadwick, of this association, who found, in an examination of school children of Westfield, about 7 per cent. of them definitely tubercular. He does not state whether any of these have actual breaking-down of the lung parenchyma, but his experience has been so large as to warrant the surety that his statement of 7 per cent. is probably correct.

In my own experience, in a small way, with a tuberculosis clinic in Norwood,—a town of some 15,000 inhabitants and a school population of 2,600,—I have found in the last year four children with definite pulmonary signs sufficient in extent to require treatment. Two were sent to the state sanatorium and one other application is now in and the patient is awaiting a vacancy.

In the conduct of this clinic there has been but little co-operation from the district nurse, so that the chances are that there are others in the town who should have come for examination. Granting, however, that four cases with definite pulmonary signs are found each year among 2,600 children of school age, it is evident that there must be enough in the country at large to fill many hundreds of beds.

In Sharon, where I have been physician to the schools, I have found two children with definite pulmonary signs. This is in the proportion of two to 600—the total school population.

Of course, no proportions can be very well drawn from so few cases. Still, from even this small number of well-marked cases of pulmonary disease in childhood, it would be within the bounds of reason to imagine that at least one child in a thousand would be found to have definite tuberculosis, that is, definite pulmonary signs as manifested by dullness and râles. Rarely would there be any sputa for examination. If we might accept this somewhat hypothetical figure as a basis of computation, and if there are something like 20,000,000 school children in the country, there would be approximately 20,000 with definite pulmonary signs about whom there could be absolutely no question of diagnosis. This number would be sufficiently large to keep construction of institutions for their care going forward apace. If, in addition, all cases that might be considered fairly definitely infected were to be cared for institutionally, meaning by that not those showing symptoms of breaking down with disease, but those having possibly enlarged glands, a positive tuberculin reaction, and perhaps general poor nutrition or anemia, the task would certainly be stupendous.

Up to the present time there has been but little attention given to the problem of tuberculosis in childhood, but there are indications that a solution of it is beginning to be sought. Dr. Elliott, in an address given recently in Boston, drew a parallel between tuberculosis and such diseases as leprosy, malaria and yellow fever. He pointed out that we did not succeed in stamping out these diseases by treating individuals who were sick with them, but that we went at the source and eradicated the cause of these diseases. If, therefore, tuberculosis practically always starts in childhood, as we must admit it does by the evidence given us by competent observers, the way to eradicate is not by sanatorium care of adults but by preventive care in childhood.

Fortunately, many agencies have been set in operation in recent years to help this problem. For the weak, anemic and undernourished child there is the open-air school. This has not been instituted as widely as it deserves. Public opinion is an inert thing, but when it becomes clear that the benefits of open-air schools, or open-window schools, or schools with proper and efficient ventilation are so great, there will be such a demand for these things that school committees

will have to provide them. For younger children, the Grancher⁶ method, of farming out those that have probably become infected in the home, to families in the country, may be a means of saving many at a minimal cost. It might be doubted whether such a scheme would work in America, as it has in France, because of the differences in modes of living. Still, it is well worth trying. The scout idea, with its appeal to the great love of out-of-doors, and the Health Crusader movement are tremendous helps. They, doubtless, have walled off many an incipient infection.

There remain, however, a tremendous number who show at some time evidence of real disease, or else a condition that has been cited as "masked tuberculosis." For these, sanatorium care would be indicated, as careful supervision is needed day and night. I have tried to make it evident that the number needing such care is great. Two points, however, become plainly evident,—first, the paucity of accommodation that is available and, second, the fact that the present meager opportunities for treatment are not overcrowded.

I have visited, recently, three of our new county hospitals in Massachusetts, and in each one some provision had been set aside for the care of children, and in each one there were two or three children, but the beds so set aside were by no means filled.

At the Sharon Sanatorium we built a pavilion for children, which has now been in operation nearly four years, and at no time have we had it more than a third filled. Our present census shows that one-quarter of the beds are taken by children who have tuberculosis, and some few others are taken by those who are really beyond childhood age. It is partly because of this lack of clinical material at Sharon and in these other institutions that I considered bringing the question of sanatorium need before this Association; to provide accommodation for patients who do not accept this accommodation.

We have seen that those who have spent most time in the study of potential tuberculosis in children are exceedingly enthusiastic in their consideration of the need of institutional care. Dr. Chadwick's accommodation is always taken. Farmingdale, as far as I can find out, is also filled. Dr. Jabez Elliott, of Toronto, reports that the preventorium there is crowded and there is consideration of building additions. Other places of like nature are sending similar reports. It will be noted, however, that in all these cases where all beds are taken, that the patient has free, or practically free, care, expenses being met frequently by the city or state or by charity. At Westfield, for example, the price of board is \$4.00 per week, but if the patient is poor and cannot pay this, the town from which the patient comes is obliged to foot the bill. Dr. Elliott receives certain sums from cities from which the patients come and also from the province, so that his institution is

furnished something like \$14 per week by these various public agencies. It is different, however, when it becomes a question of paying \$15 or more per week for a child at a private institution, and I feel sure that many people who would without hesitation raise the money for an adult, for a prolonged stay at a sanatorium, would hesitate to spend as much for a child, not so much because they think less of the child, but because the evidence of disease which requires institutional care does not appear to them so great.

Moreover, the question of family relations seems more intimate in childhood. After adolescence, the younger members of the family are expected, often, to go away to boarding school or into business, but ordinarily it seems repugnant to families to allow children to be cared for by strangers, and if such care is given for a while and the patient makes the gains in health which are ordinarily made, the length of stay is often cut short in the face of any argument from the physician. Much of the time spent is thereby lost before the matter of health can be definitely clinched.

The matter comes, finally, to a question of education. We must teach that the need of institutional care is pressing, and that such care will give surprisingly brilliant results, not only for the immediate betterment of health of the child, but also because fewer cases of adult tuberculosis will occur if the tuberculosis of childhood is properly recognized and rightly treated. It will be necessary to educate not only the public, but the pediatricians and the profession at large, and we may rest assured that in America, at least, if the need of care of tubercular children is really made evident, institutions will be forthcoming. Evidently we have made but a beginning. Apparently, also, the future fight against tuberculosis will be centered about the care of the child. Let us, then, come into that fight with all our vigor, and place the treatment on the only sure, proper foundation for success, namely, at the source.

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RADIOTHERAPY IN CARCINOMA OF THE BREAST.*

BY GEORGE E. PPAHLER, M.D., PHILADELPHIA.

ABSTRACT.

RADIOTHERAPY in carcinoma of the breast can be divided into three parts:

1st. Ante-operative and post-operative treatment, and in this group of cases there should be a conference between the radiologist and

*Read before the Suffolk District Medical Society, January 25, 1922.

the surgeon before any treatment is begun, so that the best plan of treatment can be agreed upon. The ante-operative treatment is justified both by theory and by experimental investigations. This treatment will require approximately two weeks, at the end of which time the patient can be operated upon, and the post-operative treatment should begin approximately two weeks after the operation, and will require an additional two weeks' treatment. Unless the disease is very far advanced, the patient is then observed once a month, and later at longer intervals.

2nd. Recurrent and metastatic cases always give more unfavorable prognosis, but sometimes brilliant results can be obtained. The most thorough radiation possible should be given to the local recurrences and the local metastases, but the general area likely to be involved by metastases should be included in the treatment. In all primary operative and recurrent cases of cancer of the breast, a roentgenogram of the chest should be made. Radium can sometimes be used to advantage with the x-ray treatment in the control of recurrences and metastases.

3rd. Primary carcinoma of the breast has been studied mostly in the inoperable and more or less hopeless cases. Some of these have shown remarkable response to treatment, and occasionally an inoperable case can be made operable. In the primary cases, it is advisable to treat the patient over the carcinoma and the general glandular distribution thoroughly first with the x-rays and then introduce radium directly into the tumor masses at about the time that one would otherwise do an operation. Close coöperation between the surgeon and the radiologist will produce better results than can be obtained in any other way.

[NOTE: Reprints of the original paper may be secured by writing to Dr. G. E. Pfahler, 1321 Spruce St., Philadelphia.]

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PRE-OPERATIVE PREPARATION OF PATIENTS WITH OBSTRUCTIVE JAUNDICE.

WALTERS, W. (*Surg., Gynec., and Obstet.*, December, 1921), writes as follows:

Most patients with obstructive jaundice who die

after operation succumb from intra-abdominal hemorrhage.

In most cases postoperative haemorrhage occurs when the coagulation time of the venous blood is longer than nine minutes.

The coagulation time of the blood can be reduced greatly and the toxicity diminished in patients with obstructive jaundice by daily intravenous injections of five cubic centimeters of a 10% calcium chloride solution for a three-day period.

Carbohydrates and glucose prevent disintegration of body proteins when the patient is in a state of toxæmia.

Large quantities of water aid in eliminating toxic bile pigments and increase the body fluid.

It is self-evident that in operations for obstructive jaundice the various steps of the operation be carried out with the utmost gentleness, care being taken not to traumatize the tissues, especially of the liver, and for this reason, cholecystectomy should not be performed at the primary operation if it can be avoided.

[E. H. R.]

THE CURE OF DIABETES BY FASTING.

LARBE (*Annales de Médecine*, Vol. X, No. 1, 1921). If the patient is well nourished, it is comparatively easy to get a normal blood sugar, although the glycosuria persists. Blood sugar, rather than urine sugar, is the real indicator of cure. If the patient is poorly nourished, the fasting treatment is unsatisfactory and unsafe. Patients who have had prolonged fasting treatment develop a permanent state of acidosis and die in coma in spite of all treatment.

[E. M. D.]

THE TREATMENT OF LEPROSY.

DEMELLO (*La Presse Médicale*, October 29, 1921) mentions the brilliant results obtained in the treatment of leprosy by the use of the "gynocardate de soudra." Early leprosy of the tubercular type responds the most readily to treatment. The patient may be treated at home and does not require hospital treatment. The author has also treated many patients by the oil of chaulmoogra, but withholds his results for a later article.

[E. M. D.]

TOTAL ABDOMINAL HYSTERECTOMY WITH DIRECT PERITONEAL DRAINAGE.

DARTIGUES (*La Presse Médicale*, October 29, 1921) urges drainage in all abdominal hysterectomies. He recognizes that there are certain cases in which a tendency to ooze is sufficient cause for all surgeons to drain. He thinks that there is sufficient manipulation of the peritoneum in all cases to cause a "postoperative ascites from mechanical irritation." These he drains by "direct peritoneal drainage."

The author gives several illustrations of the technique he uses. He advises the use of an "umbrella drain"—a rubber tube, perforated along its upper half, and containing a central umbrella self-retaining device. Several parallel, longitudinal incisions are made around the central part of the tube, each incision being about 1½ inches in length. These cause the central part of the tube to bulge, forming the umbrella. The tube protrudes from the abdominal wound and from the vagina and is withdrawn through the vagina.

[E. M. D.]

OBSERVATIONS UPON SURGERY OF THE LUNGS.

LLOYD, SAMUEL (*Ann. of Surg.*, November, 1921), briefly summarizes his remarks as follows:

First: For tuberculous cavities where gas injections into the pleural cavity, either because of too

rapid absorption of the gas or because adhesions prevented the collapse of the lung, extra-pleural thoracotomy should be performed. This may be completed or in stages, depending upon the condition of the patient.

Second: For bronchiectasis, extra-pleural thoracotomy may be performed, although incision and drainage or lobectomy offer a better chance of a radical cure.

Third: For foreign bodies which cannot be removed by bronchoscopy, thoracotomy, with direct removal by incision through the lung, would be the method of choice.

Fourth: For hemorrhage with increasing haemothorax, compression of the lung and displacement of the heart and mediastinum, thoracotomy with suture of the bleeding point is indicated.

Fifth: For abscess, thoracotomy and drainage of the abscess, attaching the pulmonary pleura about the opening of the lung to the parietal pleura in order to effect direct drainage, will give the best results.

Sixth: For tumors of the chest wall, including the ribs and pleurae, complete removal with a pediculated skin flap from the abdomen has been successful.

Seventh: For tumors of the lung, thoracotomy and direct excision by partial or complete lobectomy offer the only chance of curing the patient.

Eighth: For empyema, early and frequent aspiration, followed, if necessary, by intercostal incision and drainage.

If these methods are not efficacious, one of the radical operations should be performed.

[E. H. R.]

THE SURGICAL TREATMENT OF GOITRE IN SWITZERLAND.

BLOCH AND CHARRIER (in *La Presse Médicale*, October 26, 1921) note certain differences in the technique used by the Swiss surgeons in the treatment of goitre. The inferior thyroid artery is always ligated first.

1. Parenchymatous Goitre.

The two inferior thyroid arteries are ligated, the goitre delivered and the anterior branches of the superior thyroid arteries ligated. A subtotal thyroidectomy is then done, leaving the isthmus and the posterior portion of each lobe.

2. Nodular or Cystic Goitre.

After ligation of the two arteries on one side, if a unilateral goitre, a subtotal resection is done on one side and never an enucleation of the goitre.

3. Exophthalmic Goitre.

Little emphasis is laid on metabolism. Hemithyroidectomy or thyroidectomy is preferred to simple ligation. As much of the operation as possible is done on one side, leaving the other side free from scar tissue if further operation is needed.

[E. M. D.]

STILLBIRTHS.

COUVELAIRE, A. (*La Presse Médicale*, November 19, 1921), writes of the stillbirths in the Baudelocque clinic, over one-half of them due to syphilis and the toxemias of pregnancy. The French classify under stillbirths deaths during pregnancy and labor and up to the end of the third day after birth.

1. The majority of deaths before the sixth month are due to syphilis or criminal abortion.

2. The deaths during delivery are due to bad mechanical or dynamic conditions or to the poor condition of the foetus from syphilis, etc.

3. Deaths before the third day after birth are due to congenital weakness because of prematurity, caused by the poor health of the mother, often from overwork.

He suggests as remedies:

1. Medical supervision of pregnancy, dispensary examinations, and supervision in the home by visiting nurses.

2. Obstetrical assistance. He urges more and better maternity hospitals for complicated cases, and the replacement of the midwives by doctors in the simple cases treated at home.

3. Social assistance,—the right to free treatment for the poor, and government compensation in return for quitting work during the late stages of pregnancy. [E. M. D.]

TOTAL COLECTOMY.

SIR ARBUTHNOT LANE (*La Presse Médicale*, August 3, 1921), discusses the indications, technique, and results of total colectomy. He urges its use:

In cancer of the colon.—The author prefers the complete operation because of the decreased possibility of recurrence, the easiness of the ileo-sigmoid anastomosis, the chance to insert a rectal tube beyond the point of anastomosis, and the relief from the stasis prevailing in the whole colon.

2. In megacolon.—Total colectomy relieves the ptosis present in the small intestine. The anastomosis is easier to make than one between two sections of dilated colon.

3. In colitis and diverticulitis.—If medical treatment fails, colectomy is advised. This relieves the stasis always present in this condition.

4. In chronic intestinal stasis.—Under this head the author discusses at some length the theories of autointoxication, advising colectomy for a wide variety of ailments.

The technique of the operation is not described, other than the statement that an end-to-end anastomosis is done. *Results*.—In cases of entero-colitis the symptoms may in part persist. The results, in other conditions, are said to be good, provided the medical after-treatment is carefully carried out. The operative mortality is about four per cent. [E. M. D.]

VASCULAR HYPERTENSION, ITS ORIGIN AND PATHOLOGY.

TRUNECEK (*Revue de Médecine*, 1921, Nos. 6, 7, and 8) discusses arterial hypertension, spasmodic and plethoric hypertension, their causes, symptoms and the course of the disease. He concludes:

Vascular hypertension has its chief basis in the alteration of the blood plasma. These alterations constitute the early stages of several so-called chronic diseases, stages which might be called precirrhosis, prenephritis and presclerosis.

In every case there is at first a chemical alteration of the blood plasma, the latter then influencing the whole system. These chemicals influence different tissues differently.

There are two types of chronic constitutional disease, one, as arteriosclerosis, characterized by pathological changes in the organs; the other, as vascular hypertension, caused by chemical changes in the blood plasma. [E. M. D.]

MOBILITY OF THE NORMAL KIDNEY.

HITZENBERGER AND REICH, from Wenckebach's first medical clinic at Vienna, have demonstrated to their own satisfaction (*Wien. klin. Woch.*, November 10, 1921) by pyeloscopy observations, the static and respiratory mobility of the normal kidney. They find that the kidney moves with the excursion of the diaphragm in every position of the body, and is habitually lower in standing than in lying. Exaggerations of this normal mobility result in true nephroptosis. [R. M. G.]

ALBEE'S OPERATION FOR POTT'S DISEASE.

MATHERS, from Wittek's orthopedic and casualty clinic at Graz, reports (*Wien. klin. Woch.*, November 17, 1921) excellent results from Albee's operation in

five of six cases of vertebral tuberculosis. He believes, however, that the indication for the operation is restricted to adults.

[R. M. G.]

A NEW SKIN REACTION IN LUPUS.

BUSACCA, from Finger's skin clinic at Vienna, reports (*Wien. Klin. Woch.*, November 24, 1921) a new intracutaneous reaction in skin tuberculosis, produced by the injection of normal horse serum. He believes this test diagnostic for lupus vulgaris and lupus erythematosus.

[R. M. G.]

A MEDICAL POET OF MARYLAND.

We already owe a great deal to Dr. Ruhrah; most recently for resurrecting, to our knowledge, John Shaw (*Ann. of Med. Hist.*, September, 1921), a medical poet of Maryland, a gentleman, physician, and a scholar. Shaw's verse has a haunting melody that reminds one at once of Gay and of Moore. His genius is, perhaps, best shown in his translations, notably his version of a Portuguese air, and his rendering of the first ode of Anacreon. Ruhrah sketches interestingly Shaw's life, his travels, his brief medical career, his slender contribution to literature, his death from tuberculosis at the age of thirty. Had he lived, his name might have ranked with those of other men of letters who have also gained distinction as teachers and practitioners of medicine. It deserves to be treasured with those of other minor medical poets to whom literature has been light through dark and weary days.

[R. M. G.]

THE EFFECTS OF ALCOHOL UPON DIGESTION IN THE STOMACH.

HAULBORG, A. O. (*Acta Medica Scandinavica*, 1921, Suppl. 1), studied, by means of the stomach tubes, the effect of alcohol in various forms upon digestion. He found that resorption takes place mainly through the stomach, and is more rapid when the stomach is empty. When amounts of alcohol comparable with the amount consumed normally (in Europe) are ingested 80-90 per cent. undergoes combustion within the first three or four hours. Not more than 0.5 per cent. of the alcohol consumed is excreted through the kidneys.

In regard to the effect of alcohol upon digestion, Haulborg found in one experiment that alcohol of a concentration of less than 10 per cent. appeared to cause a considerable rise in proteolysis. Alcohol in stronger concentration than 20 per cent. prevented proteolysis. The ingestion of large doses of alcohol (50 ccm. aqua vitae) after a meal is not followed by disturbance of gastric digestion. In fact, secretion of gastric juice is increased. The ingestion of this amount of alcohol before eating, however, disturbs digestion to a considerable extent. In from one and a half to two hours after ingestion, alcohol increases the free HCl in the stomach to an appreciable degree. Haulborg believes that this effect is most probably due to the effect of alcohol upon the nervous system. The secretion of gastric juice did not appear to be increased by the psychic influence of alcohol. The sight, smell and taste of beer and aqua vitae were without definite effect.

Beer and wine at first bind the free HCl of the gastric juice, but later cause a much increased secretion. In the course of three hours the proteolytic capacity of gastric juice may be increased by about 60 per cent.

In patients with hyperacidity and gastric ulcer, alcohol increased the acidity of the gastric secretion, and consequently increased the pyrosis and pain.

In cases of gastric cancer, alcohol does not affect the secretion of gastric juice, but sometimes does

appear to relieve pain and remove feelings of fullness and nausea.

In cases of achylia gastrica, alcohol increased proteolysis. In several cases alcohol produced free HCl when it was otherwise lacking. Haulborg believes that the value of alcohol as a "stomachic" has been over-estimated. Although small doses do augment secretion, this effect is only temporary. More than 10 per cent. of alcohol in the gastric contents, by producing chemical effects upon the pepsin, retards digestion.

The influence of beer and wine upon digestion, which is to promote secretion, must be largely ascribed to the extracts which they contain. [E. G. S.]

RENAL TUBERCULOSIS.

CAULK, JOHN R. (*The Journal of Urology*, August, 1921). About 30 per cent. of all the surgical lesions of the kidney are tuberculosis. This disease is usually a unilateral affair, primary in the kidney, as far as the urinary tract is concerned, but usually secondary to some other focus in the body, such as the lungs, bone, gland, bowel, or genital tract. Braasch, in the large series from the Mayo Clinic, shows that about 30 per cent. have pulmonary involvement.

Most authors concur in the belief that the usual path of infection to the kidney is through the blood stream, and there is abundant evidence to warrant the conclusion that this is the most universal manner of renal infection. With a small tuberculous involvement within the body, there are frequently temporary bacillemiæ. It is therefore easy to appreciate how a kidney, constantly filtering organisms, could under certain conditions become infected. There are also instances of tuberculosis in the substance of the kidney without any evidence of tuberculosis in the urinary tract.

This disease is one of early adult life; about 70 per cent. occurring between the ages of 20 and 40. Males seem more prone than females. A positive family history was given in 20 per cent.

The progress of the pathological processes in chronic tuberculosis of the kidney is variable, ranging from the very early lesion, as a slight granular area at the base of one of the pyramids, to complete destruction and isolation of the kidney.

Coincident with the lesions in the kidney and usually the first thing that attracts the patient's attention to the disease is the resulting condition in the bladder, namely, a spreading tuberculosis. This usually starts around the ureteral orifice in early cases as a tubercle, later caseation and ulceration. The process gradually extends and involves the different parts of the bladder wall with disseminated lesions.

Symptoms of renal tuberculosis are primarily and chiefly vesical. Painful urination, particularly terminal pain and hematuria. A hazy, limpid urine with occasional red blood cells or considerable pus without bacteria in ordinary stains is very suggestive of tuberculosis; such urine should be stained for tubercle bacilli and if a careful search is made, the organisms should be found in at least 75 per cent. of all the cases. The most important feature in the surgical outlook of the tuberculous subject is the finding of a unilateral tuberculous kidney and finding it early, before the late results have become manifest. There has never been, in the history of medical literature a single authentic case of spontaneous healing of a tuberculous kidney. As to the relief of bladder symptoms, it is hard to predict. Lower laid down the rule that the bladder caused the patient trouble as long after operation as it had before. Braasch claimed that the relief of bladder symptoms is proportionate to the severity of the lesion. The average mortality among operators is about 7 per cent. [B. D. W.]

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BOVINE TUBERCULOSIS IN MASSACHUSETTS.

The hearing on House Bill No. 1093, before a joint session of the Legislative Committee on Agriculture and Public Health, on February 14, developed unusual interest. The bill provides for coöperation with the Federal Government in the establishment of herds and areas where dairy cattle shall be free from tuberculosis, the Federal Government duplicating the expenditure of the State, up to a certain amount, for the purpose of partially reimbursing farmers for slaughtered tuberculous stock. At the present time, Massachusetts and California are the only states not so coöperating, and California prohibits the sale of non-pasteurized milk except from tuberculin tested herds. The bill is proposed by the Ayrshire Breeders' Association of Massachusetts and is supported by practically every stock breeders' and farm organization of the State, as well as by leading health and welfare organizations.

Under existing Massachusetts law, indemnity can be paid by the Commonwealth only for cattle which are condemned by Division officials, such condemnation to occur as a result of physical examination, the use of tuberculin as a diagnostic agent being, in most cases, prohibited. As the majority of cattle reacting to a tuberculin test are not cases that can be readily condemned by physical examination, in-

demnity for such reactors cannot be paid by the State, and for that reason alone no Federal indemnity is available. The Massachusetts cattle owner, therefore, who desires to eradicate tuberculosis from his herd by slaughter of the reactors to an official test, finds himself denied both State and Federal indemnity as partial reimbursement for his losses, and consequently the work of eradication by the "tuberculosis-free accredited herd" plan has not progressed in this State to the extent it has in most other states of the Union, nor has the eradication of tuberculous cattle progressed to the extent it would if Massachusetts laws were more favorable to its progress.

Because of the fact that the Massachusetts stock breeder has found himself at a distinct disadvantage in the market with dealers from other states where dairy cattle offered for sale can be certified by the Federal Government as free from tuberculosis, as well as because of the realization of the great importance of the eradication of bovine tuberculosis as a public health measure, this bill has been brought forward. If the bill is passed, it means that a sum not to exceed \$50,000 from the Federal Government, in return for the appropriation of a like sum by the Commonwealth, will become available to stock breeders who voluntarily accept the aid. Under the operation of the Federal plan the owner, the State, and the Federal Government, each bear one-third of the loss, according to the appraised value of the slaughtered tuberculous stock.

It has been suggested that the bill would require no appropriation over the amount disbursed by the State in 1921, under the present plan. The amount expended for this purpose by the Commonwealth in 1920 was \$40,000. In 1921, because of the increase from forty to sixty dollars maximum per head indemnity, the amount expended was increased to \$90,000. Because of the decrease during the past year in the value of dairy cattle, it is estimated that the \$90,000 appropriation would carry the State, both for Federal coöperation and the independent state work as now conducted. There are at the present time 150,000 dairy cattle in the State, 20 per cent. of which are estimated to be tuberculous. It can be readily seen that if the percentage holds true, the cost to the Commonwealth of eradicating the entire 20 per cent. during the next ten or fifteen years would not be excessive.

At the hearing, the proponents of the bill expressed their belief that while the measure is not mandatory it will be taken advantage of by enough dairymen to absorb the fund available, as the Federal Government will not, this year, be able to allot more than \$50,000 to Massachusetts. Several farmers testified that they and others had already slaughtered their stock at severe personal loss, because of their inability

ity to secure either State or Federal aid, in order that their herds might be "clean."

The importance of the bill as a public health measure outweighed at the hearing, as it does in fact, the business side of the problem. As is well known to the medical profession pulmonary tuberculosis of bovine origin among adults is, so far as proven by any investigation, of extremely rare occurrence. In non-pulmonary tuberculosis among children, however, the facts are different. Fishberg says, "Under five years of age, 61 per cent. of cervical tuberculous adenitis, 58 per cent. of abdominal tuberculosis, and 66 per cent. of generalized tuberculosis and meningitis, which may be of alimentary origin, are caused by the bovine virus." Dr. A. Stanley Griffith, of London, who in a recent series of tests tabulated 1068 cases of tuberculosis, found 221, or 20.7 per cent., showing bacilli of the bovine type. He found the percentage to be much larger among children under ten years of age. Of 221 children less than five years old examined, 83, or 37.55 per cent., showed the animal germs. Of 312 children between five and ten years old examined, 92, or 29.45 per cent., showed animal rather than human germs. Of the total of 1068 tubercular children examined, 216 showed purely bovine tubercle bacilli, 847 showed purely human tubercle bacilli, and the remainder showed bacilli of both sorts.

Studies of this subject by German and French authorities, while less recent, are no less conclusive. French tests have shown 33 per cent., and German 24 per cent. of tubercular children examined, suffering from bovine infection. Bovine tuberculosis is undoubtedly responsible for a large percentage of non-pulmonary tuberculosis of childhood, which means that it is also responsible for a large percentage of tuberculous cripples. Approximately one-sixth of the mortality from tuberculosis in the Commonwealth, is of the non-pulmonary type of the disease. The above facts were clearly brought out by different speakers at the hearing.

A point was also advanced in favor of the bill, that it is not practicable to attempt to handle the health side of this problem wholly by the pasteurization of milk. At the present time not over 50 per cent. of the milk consumed in the State is pasteurized, and pasteurization for home consumption and in small communities probably will not become general.

It would seem to be sound business to stop at its source this cause, which is undoubtedly responsible for a considerable percentage of the deaths and human misery from tuberculosis, in addition to the huge annual expense to the Commonwealth for the care and maintenance of those thus afflicted. Judging from the strength developed in favor of this bill at the hearing, there seems to be some probability of its passing.

MATERNAL AND INFANT MORTALITY.

NEARLY two hundred and fifty thousand babies die in the United States each year. About one hundred thousand of these babies die in the first month of life, and most of them because of conditions affecting the mother before the birth of the child. Proper medical care during pregnancy would reduce this death rate to a large degree.

Probably more than fifteen thousand mothers die in childbirth, and a large number subsequent to parturition, by reason of conditions directly associated with pregnancy, damage during delivery, or sepsis. The contention is being repeated that over half of these deaths might have been prevented.

The United States Public Health Service has published a concise and very complete résumé of the essential prophylactic measures which should be employed to safeguard the mother and child. Beginning with the hygiene of pregnancy, the rules which a pregnant woman should follow are carefully presented and the importance of medical supervision explained. The symptoms suggestive of possible dangers are referred to and the folly of using patent medicines denounced. Lists of all needful articles for use during confinement are given, and directions for routine after-care are clearly stated. There follow careful explanations of the best methods employed in taking care of the baby, with admonitions relating to records and observations, in order that one may be able to detect any departure from normal development.

The indications of disease or functional disturbance are tabulated. The information covers the development of the child up to the twelfth year. The advice about the bottle-fed baby, with detailed direction for the preparation and care of the food, is presented in a clear and convincing manner.

Every suggestion will tend to make the mother feel the importance of depending on the well-educated physician, so that this publication cannot lead to the objection that it will in any way tend to eliminate the doctor's services or develop the habit of untrained prescribing. The publicity of the means by which illness may be avoided and the normal development of the child enhanced, should lead the laity to believe more and more in the advantages of knowledge.

Many busy practitioners could read this report to advantage. It would be very useful if consulted often and put into the hands of pregnant women. It appears in the *Public Health Reports* under date of February 3, 1922.

If local health organizations would freely distribute copies of this report to all married women, it is probable that good would result.

NOTICE.

ACCORDING to the usual custom, the JOURNAL will be sent to Fellows of the Society who have paid the annual dues on or before March 1st. The accredited list will be prepared this month, and if there are any Fellows who have omitted paying the yearly dues this matter should be attended to promptly, for otherwise any Fellow in arrears may fail to receive the JOURNAL.

NEWS NOTES.

WORCESTER DISTRICT MEDICAL SOCIETY.—At the regular meeting of the Society held February 8th, at Memorial Hospital, the following programme was presented: Empyema: Report of 100 Cases, by Dr. Donald Adams; A Rational Addition to the Treatment of Pneumonia, by Dr. O. H. Stansfield; Caesarean Section in the Presence of Pneumonia, by Dr. Walter Seelye; Sarcoma of Jaw (case report), by Dr. Harold Gibby; Spinal Cord Lesions, by Dr. Benj. Burley; The Whitman Loop Operation, by Dr. C. E. Ayers; Why Wait for Diphtheria Culture? by Dr. C. B. Stevens. Two other papers were on the programme, but owing to the late hour they were omitted. Those that were presented, however, were done so in a snappy, clear-cut fashion which made the afternoon a pleasant and profitable one for all who were present. The following members took part in the discussion: Drs. Gage, Miller, George, Shattuck, Stansfield, Stowell, Trowbridge, Kenney, and Stevens. About seventy members were present. At the business meeting it was voted to give the books in the Medical Library on Natural History, which were of no medical value, to the Worcester Natural History Society. From 6.30 to 7.30, the members were entertained at lunch by the Hospital and its Staff, and a good time was enjoyed by all.

DR. WM. T. SOUTHER of Worcester died at his home, 22 Auburn Street, February 21, 1922, aged 71 years. He was a graduate of Yale in 1873, and Harvard Medical School, 1877, and was House Physician at Boston City Hospital for one year. He was a member of the School Board of Worcester for many years.

FROM the standpoint of publicity the committee having in charge the Cancer Day programme can be very well satisfied. Over 1000 people heard Dr. Joseph Colt Bloodgood of Johns Hopkins University, representing the American Society for the Control of Cancer, give his splendid lecture on the prevention of cancer, at Hotel Bancroft, February 24, 1922. The Worcester newspapers gave many columns

to the subject, and Dr. Bloodgood returned to Baltimore very much pleased with his reception in Worcester.

R. J. WARD, Reporter.

PHYSICIANS FOR COUNTRY TOWNS.—The statement has been made in the public press that the Rockefeller Foundation stands ready to help by sending a physician to any community that provides a home for him. The question is one of vital interest to western Massachusetts.

EPIDEMIC JAUNDICE.—Several mild outbreaks of epidemic jaundice have been reported in New York City and throughout that State. There has been one fatal case. The majority of the cases have been among children. Physicians are urged to report the cases and submit data relating to this disease.

DURING the week ending February 25, 1922, the number of deaths reported was 327 against 213 last year, with a rate of 22.32 against 14.65 last year. There were 51 deaths under one year of age against 35 last year.

The number of cases of principal reportable diseases were: Diphtheria, 77; scarlet fever, 43; measles, 152; whooping-cough, 4; typhoid fever, 2; tuberculosis, 31.

Included in the above were the following cases of non-residents: Diphtheria, 6; scarlet fever, 9; measles, 1; whooping-cough, 1; tuberculosis, 6.

Total deaths from these diseases were: Diphtheria, 3; scarlet fever, 4; measles, 2; whooping-cough, 1; tuberculosis, 12.

Included in the above were the following cases of non-residents: Diphtheria, 2; scarlet fever, 1; whooping-cough, 1.

Influenza, 10 deaths. Lobar pneumonia, 40 deaths.

THE meeting of the New England Ophthalmological Society was held at the Massachusetts Charitable Eye and Ear Infirmary, 233 Charles Street, Boston, on Tuesday evening, February 28, 1922, at eight o'clock. At the annual meeting the following officers were elected for the ensuing year: President, Dr. F. H. Verhoeff; Vice-President, Dr. W. N. Souter; Secretary-Treasurer, Dr. W. Holbrook Lowell; Committee on Admissions: Dr. E. T. Easton, Dr. E. K. Ellis, Dr. Ralph Hatch. "It was proposed that membership in this Society should be unlimited, except as to qualifications as set down in the Constitution." Program: Hospital Cases; Papers: Blocking of Facial Nerve in Cataract Operations, Dr. George S. Derby, Boston; Clinical, Histological and Experimental Observations on Phacoanaphylactic Endophthalmitis, with Demonstration of Microscopic Specimens, Dr. F. H. Verhoeff, Boston.

DR. FRANK BILLINGS says: It behooves us as members of the medical profession to take the part of leadership in local, district and state health movements. Let us medicinize the social movement. That will help it forward and will place the medical profession in a position to rationally direct the health crusade.

DR. ROGER I. LEE, Professor of Hygiene, Harvard University, lectured before the School of Hygiene and Public Health, Johns Hopkins University, on "The Physical Examination of Large Groups of Individuals," at its regular weekly lecture, February 6.

JOHNS HOPKINS SCHOOL OF PUBLIC HEALTH.—The Rockefeller Foundation has given to Johns Hopkins University \$6,000,000 for endowment and buildings of the School of Hygiene and Public Health. The school has heretofore been supported by the Foundation. The site is to be adjacent to the Johns Hopkins Medical School. There are 131 students now in training in the school.

AN AMERICAN SURGEON HONORED.

"UNDER date of November 29th, 1921, the Bureau of Navigation received from the French Government the Officers' Cross of the Legion of Honor, conferred upon Commander William Seaman Bainbridge, M.C., U.S., N.R., of New York City."—*Army & Navy Register*, Nov. 29, 1921.

The same Journal, February 18, 1922, makes the following statement:

"Commander W. S. Bainbridge, M.C., U.S., N.R., sailed from New York February 7, on the *Aquitania*, to attend a meeting on February 20, in Brussels, as a member of the permanent committee of the Congress International de Médecine et de Pharmacie Militaires. It is understood that committee members from France, England, Holland, Switzerland, Italy and Spain will be present to decide upon a program covering questions of military and social medical organization. The full Congress met in Brussels last summer, when Commander Bainbridge acted as American member."

Obituaries.

WILLIAM CHRISTOPHER BERRY, M.D.

DR. WILLIAM CHRISTOPHER BERRY, a fellow of the Massachusetts Medical Society, died February 8, 1922, at the age of sixty-four. He was a graduate of Tufts College Medical School in the class of 1907, joining the State Medical Society two years later and settling in practice in Charlestown. In 1911 he moved to Jamaica

Plain and established an office in Warren Chambers, which was maintained until his death. Of late he had made his residence in West Roxbury.

DR. PEARCE BAILEY, NEUROLOGIST, DIES.

DR. PEARCE BAILEY, one of the best-known neurologists in America, who arranged the psychiatric tests used in the draft armies during the war, to weed out the unfit, died February 11, 1922, at his home, 45 West 53rd Street, after a brief illness from pneumonia.

He was born in New York July 12, 1865, and after being graduated from Princeton in 1886, studied medicine at Columbia, taking his M.D. there in 1889. He went abroad for a time to study, and then returned to this country to take up his work in neurology. He soon became known as one of the most skillful practitioners in this line in the country.—*New York Times*, Feb. 12, 1922.

CHARLES EZRA TAFT, M.D.

DR. CHARLES E. TAFT, of Hartford, Connecticut, died in that city, February 10, 1922, at the age of fifty-eight.

He was born in Dedham, Massachusetts, July 11, 1863, graduated from Harvard Medical School in 1886, joined the Massachusetts Medical Society, served as medical house officer at the Boston City Hospital and then went to New York City to fill the position of house surgeon at the "Womans Hospital, in the State of New York."

Completing his training there he settled in Hartford where he spent his life practising gynecology and obstetrics. He was attending surgeon to St. Francis Hospital and at one time assistant surgeon to the first regiment, Connecticut National Guard. He was a member of the Hartford Medical Society and of the County and State Medical Societies. Dr. Taft filled an important place in the medical community of Hartford and will be much missed by his confrères, and by a large clientele of patients.

HEBER BISHOP, M.D.

DR. HEBER BISHOP, surgeon, insurance man and big game hunter, died February 20, 1922, at the Copley Square Hotel, where he had made his home for a quarter of a century. Death was due to heart trouble and came suddenly, although he had been ill for twelve weeks. Soon after he had eaten his breakfast a sinking spell occurred and he failed to rally. His death removes one of the foremost fishermen and sportsmen in America.

Dr. Bishop was born in Marbleton, Quebec, on July 26, 1858. His parents were Henry Gordon Bishop and Catherine Howard (Farnsworth) Bishop. He was a descendant of Francis Cooke, one of the Mayflower band of voyagers, and on his father's side, of Hon. James Bishop, who was a lieutenant governor of Connecticut.

Heber Bishop attended a normal school at Marbleton, from which he was graduated in 1874. He received the degree of B.A. from Bishop's College, Lennoxville, Quebec, in 1875, and then studied medicine at McGill University. About this time he married Emma Louise Woolley of Ogdensburg, N. Y., and then went to London, where he spent considerable time in St. Thomas's Hospital, of which he was a life member. He was made a member of the College of Physicians and Surgeons of Montreal in 1882.

On returning from London, he practised medicine in New York City, with offices in the old Hoffman House. He then came to Boston and from 1884 until 1888 practised his profession here. In 1888 he was made surgeon and adjuter for the United States Mutual Accident Association of New York, filling that office until 1895, when he became surgeon and adjuter for the Aetna Life Insurance Company of Hartford. He was finally made manager of the accident and health departments of that company and filled this position until his death.

Dr. Bishop held a commission as surgeon of H. M. Fifty-eighth Regiment, Compton Battalion of Infantry, of Quebec, which he received in 1882. He was treasurer of the board of trustees of the New England Home for Deaf Mutes.

He was one of the founders of the Megantic Fish and Game Club in Canada, was a member of the North American and the Massachusetts Fish and Game Protective associations, the Canadian Club and the Boston City Club. In Masonry his affiliations were with Massachusetts Lodge, A. F. and A. M., St. Andrew's Chapter, and Boston Council.

The trophies of his hunting and fishing prowess are preserved at his lodge in Maine. In addition to his widow, he is survived by two daughters.

EDWARD MUSSEY HARTWELL, M.D.

FOLLOWING an illness that had extended over several weeks, Dr. Edward M. Hartwell, Secretary of the Statistics Department of the City of Boston since its establishment in 1897, died at his home in Jamaica Plain February 19, 1922.

Dr. Hartwell was a native of Exeter, N. H., where he was born May 29, 1850. He was the son of Shattuck and Catherine Stone (Mussey)

Hartwell. He prepared for college at Lawrence Academy, Groton, and the Boston Latin School, and entered Amherst, from which he graduated in the class of '73. Three years later he received his A.M. degree from Amherst, and in 1881 he was awarded a Ph.D. by Johns Hopkins University. In 1882, Dr. Hartwell was honored by Miami Medical College of Cincinnati with the degree of M.D., and LL.D. was given him by Amherst in 1898.

During 1873 and 1874 Dr. Hartwell was vice-principal of the Orange, N. J., High School, and for the following three years he was instructor in the Boston Latin School. He began his medical studies in Cincinnati with his uncle, Dr. William Mussey, a physician then widely known in Ohio. He was a fellow at Johns Hopkins in 1879 and 1880, later being an associate in physical training and director of the gymnasium at the University from 1883 to 1891. He became director of physical training in the public schools of Boston in 1891, remaining until 1897. Then a department of statistics was established in this city and he became secretary, holding the position up to the time of his death.

Dr. Hartwell was chairman of the Massachusetts Commission for the Blind from 1906 to 1908. In 1888 and 1889 he was special expert agent of the United States Department of Labor in Europe. Dr. Hartwell studied in Berlin, Vienna, and Stockholm, and made special investigations in hygiene, education and statistics in Great Britain, Germany, Russia and Scandinavia. He was a member of the Boston Society for Medical Improvement, American Statistics Association, St. Botolph Club, Twentieth Century Club and Puddingstone Club. He was a member of the Medical and Chirurgical faculty of Maryland and the Eliot Club of Jamaica Plain.

Dr. Hartwell had done considerable in a literary way. He made some translations from Swedish, and wrote numerous pamphlets, articles and reports upon physical training, school hygiene and the condition of the blind. He also contributed papers to the publications put out by the United States Department of Labor, the United States Bureau of Education, National Municipal League, and the American Statistical Association. As a result of his studies in Berlin, Vienna, Stockholm and Moscow, Dr. Hartwell became an authority in many lines of historical and scientific research.

While abroad as the special agent of the United States Department of Labor, Dr. Hartwell was married in London, Eng., on July 25, 1889, to Miss Mary Laetitia Brown of Baltimore, Md. She survives him, as do two daughters and a son.

Miscellany.**AMERICAN SOCIAL HYGIENE ASSOCIATION.**

FROM THE REPORT OF FRANCES M. HOLLINGSHEAD, M.D., DIRECTOR OF THE BUFFALO FOUNDATION.

THE Board of Managers, Department of Hospitals and Dispensaries, requested the Buffalo Foundation to make a social investigation of the Urologic Clinic. Herewith is an abstract of the facts disclosed by this investigation:

The Venereal Disease Clinic of Buffalo occupies a series of rooms in the Health Center Dispensary Building. The personnel consists of a part-time physician-in-charge, five part-time assisting physicians, a head nurse and an assistant, an orderly, and a clerk. The quarters are thoroughly sanitary.

As a result of the investigation, the Buffalo Foundation comes to the following conclusions:

The clinic managed under the municipality becomes a very important part of the educational program being carried on for the cure and prevention of venereal disease. Buffalo should enlarge the local program very much. There is need for much education through lantern slides, lectures, and films, by qualified persons. Industrial concerns should cooperate strongly in this.

The Buffalo Department of Hospitals and Dispensaries deserves much credit for having entered this field very early on the curative side, and for having done a very creditable piece of work. Other agencies ought to do their share to develop the preventive and educational activities.

Much education is needed to instill into the minds of the public the knowledge that venereal disease must be treated as an infectious disease, and cured as completely as possible, and that such conditions will never be attained until the public accepts the conditions as they are and agrees to do away with the traditional wall of mystery which has been established about the whole matter. This requires the cooperation of the Health Department, the Department of Hospitals and Dispensaries, Public Schools, Women's Clubs, and the Nursing Association. The Clinic, however, must be the center around which the work revolves.

The Clinic at Health Center No. 5 is not perfect, but it is very much in advance of other city clinics, and can be made a model clinic. The public's share in this work is to give generously of the city money to secure the best.

TYPES OF PATIENTS AT THE UROLOGIC CLINIC OF BUFFALO.

During the period of 30 days in which the social investigation was being made, there were

admitted to the Clinic 165 new patients—133 white and 32 colored. Of the 165, only 27 were females; but indications are that with further separation of the sexes, the attendance of women will be markedly increased.

The ages ranged from nine to seventy-nine years. Children under 16 are sent to the Children's Clinic for regular treatment. The marital condition of the patients is as follows: Of the 138 males, 34 were married; of the 27 females, 19 were married.

Of the 165, 108 were located either at or from their homes. The number of unlocated persons after one interview represented 19 per cent. of the total. Most of these had deliberately given fictitious addresses in order to cover up their tracks. A regular social worker employed permanently in the Clinic, could trace these patients by asking to have them sent back to the interviewer in their next visit to the Clinic.

As regards employment, only 42 of the 165 were known to be employed. Four were students, and for four others no information was available. Of the 115 who were not employed, 14 had not been employed less than three months, 54 had been unemployed for from three to six months, 15 from six months to a year, and six had been unemployed for longer periods, up to six years; 27 failed to give length of unemployment. The majority had been engaged in common laboring jobs, in factories, railroads, steel mills, etc.

The occupations can be classified into 37 different groups. The two largest are common laborers and factory workers. Some of the others were sailors, chauffeurs, garage workers, steel workers, domestic servants, motormen, and even a clergyman.

Of the 42 who were employed, six were earning less than \$10 a week, 17 were earning from \$10 to \$19 per week. Of the latter, five have from four to six dependents. Twelve patients earn between \$20 to \$29. Only five patients earn from \$30 to \$40. Most of the patients earning from \$20 to \$40 have dependents, which makes clinic treatment the only kind that they can have available within their budgets.

In general, the facts as brought out by the survey of the Buffalo Urologic Clinic indicate that the maintenance of a clinic for the diagnosis and treatment of venereal diseases is absolutely essential to preserve the public health of the community.

Symposium on Syphilis. *Pennsylvania Journal of Medicine*, January, 1922.

The symposium on the treatment of syphilis held during the General Meeting of the Medical Society of the State of Pennsylvania, Philadelphia Session, October 5, 1921, included a

number of papers of interest to the progress of the control of syphilis. Jay Frank Schamberg, who read the paper, "Modern Conceptions of the Treatment of Syphilis," concludes that no crystallized formula of treatment can be adapted to all cases, and in no disease is individualization more essential than it is in syphilis. Thomas McCrae, whose paper dealt with the treatment of visceral syphilis, believes that the cure of that form of syphilis is more or less uncertain. Mercury is an important aid. In aortic syphilis, the dosage of arsphenamin or neoarsphenamin should be small, and in hepatic syphilis, not at all. The Wassermann reaction, whether negative or positive, should be regarded conservatively, he asserts.

The paper on neurosyphilis, read by Harry C. Solomon, emphasized the following points: Neurosyphilis often develops during the course of the usual routine antisyphilitic treatment, in which case the treatment must be considered inefficient. The method of treatment must depend upon the individual case. Often mercury and iodides may succeed after arsphenamin fails to effect a cure. The spinal fluid is not the major criterion, as patients whose fluids remain pathological may recover clinically, whereas patients whose fluids become negative may succumb from neurosyphilis. In closing, Dr. Solomon says:

"I would have you believe that I am optimistic about the treatment of neurosyphilis. Not all cases can be helped. But many cases which are considered incurable can be greatly benefited by intensive and prolonged treatment of the proper sort. We have at our disposal the means with which to help many cases of neurosyphilis, including meningitis, tabes, and paresis. Many of these cases are considered hopeless because of inadequate handling."

In the discussion that followed the presentation of the papers, Dr. Schamberg makes the following pertinent statement:

"If there is any maxim or principle that we may set down in the treatment of syphilis, it appears to me that the hazard of the treatment should be measured against the hazard of the disease."

NEW AND NONOFFICIAL REMEDIES.

DURING February, the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in *New and Nonofficial Remedies*:

Persson Laboratories—Bacillus Coli Antigen (No. 50), Persson; Furunculosis Vaccine (Mixed) (No. 37), Persson; Gonococcus Antigen (No. 47), Persson; Staphylococcus Aureus Antigen (No. 49), Persson; Streptococcus Antigen (No. 48), Persson; Pneumonia Vaccine (No. 36), Persson.

Powers-Weightman-Rosengarten Co.—Novarsenobenzol, Billon.

G. H. Sherman—Whooping-cough Vaccine, Sherman; Mixed Typhoid Vaccine, Sherman; Aene Staphylococcus Vaccine, Sherman.

Winthrop Chemical Co.—Alypin.

Butyn. — Paraminobenzoyl-gammadinormal butylaminopropanol sulphate. It is a local anesthetic proposed as a substitute for cocain, particularly in surface anesthesia, as for the eye, nose and throat. It has the advantage of acting through intact mucosae almost as effectively as cocain. On the normal human eye, a 0.5 per cent. solution of butyn is less effective than a 1 per cent. solution of phenacain, but more efficient than a 1 per cent. solution of cocain or a 1 per cent. solution of eucain. Butyn has been used with success in practically all operations on the eye, and in some operations on the nose and throat. Butyn is supplied in solution and also as Butyn Solution, 2 per cent.; Butyn Tablets, 0.2 gm., and Butyn and Epinephrin Hypodermic Tablets.—The Abbott Laboratories, Chicago.

A NEW LOCAL ANESTHETIC.

Many new local anesthetics have been introduced into medicine in recent years. Some of these have largely displaced cocain for certain purposes, but cocain is still the drug preferred by many for surface anesthesia, i.e., for application to mucous membranes. A distinct advance in the discovery of drugs useful for anesthesia of the mucous membranes seems to have been made in Butyn (pronounced Bute-in, with the accent on the first syllable), as announced by the Council on Pharmacy and Chemistry in the *Jour. A. M. A.* for February 11, 1922, p. 431. This compound resulted from the systematic studies of Professors Roger Adams and Oliver Kann of the University of Illinois, and Dr. E. H. Volwiler of the Abbott Laboratories, Chicago.

Chemically, butyn belongs to the procaine ("novocaine") group of drugs, but unlike procaine, it has a much greater ability to penetrate and anesthetize mucous membranes. A comprehensive report of the use of this drug in ophthalmic and in nose and throat work, prepared by Dr. A. E. Bulson, Jr., for the Committee on Local Anesthesia of the Section on Ophthalmology, appeared in the *Jour. A. M. A.* for February 4, 1922, p. 343. The Committee concludes that butyn is more powerful than cocain, a smaller quantity being required; it acts more rapidly and the action is more prolonged; to date, it seems less toxic in the quantity required; it produces no drying effect on tissues and no change in the size of the pupil; it has no ischemic effect; it can be boiled without impairing the anesthetic efficiency.

On the other hand, the Council warns that butyn does not appear promising for injection anesthesia or for spinal anesthesia, since its toxicity is materially greater than that of procaine and equal to that of cocaine.

The profession will welcome any drug which can replace cocaine, on account of the serious public health problems the illegitimate use of the latter involves, and will hope that the time will come when it can dispense entirely with this dangerous habit-forming drug. Butyn may be obtained without narcotic blanks.

REPORT OF THE DEPARTMENT OF HEALTH OF THE STATE OF NEW JERSEY.

IN view of some common problems relating to administrative and legislative matters, the report of the New Jersey Department of Health for the year ending June 30, 1921, is interesting.

According to the statement of the Chief of the Bureau of Medical Supervision, the Department of Health receives the cordial support of the medical profession, although lack of proper organization inhibits the efficiency of the medical fraternity. Even though conditions are not ideal, the Department evidently entertains the hope that the future may demonstrate the beneficial influence of this coördination. The problems relating to maternity and infant welfare seem to be much like those in Massachusetts. The maternal mortality was 20 per cent. higher in 1920 than in 1919, and the statement is made that the rate of 5.5 per 1,000 births, or the loss of one mother in 181 births, is unusually and distressingly high. The conclusion is "that high maternal mortality is neither particular to the large cities nor to the rural counties, but is determined by a number of factors into which enter prenatal care, the character of the obstetric service, the availability of expert care for complicated cases, and the proper after-care of the mother."

The stillbirth rate was 42.1 per 1,000 births, and the important statement is made that these death rates represent conditions that also lead to chronic invalidism for thousands of mothers. This opinion has never been adequately expressed, for the pathos of the invalid mother has been overlooked, to some extent, because it cannot be shown in statistics.

The results of the supervised mothers show that the infant mortality can be materially reduced, but the prenatal care was, so far as the Bureau is concerned, applied in 384 mothers out of a total of 76,431 deliveries.

The midwives question is taken up at length. There were 28 per cent. of the deliveries conducted by midwives. Licenses have been is-

sued to 956 midwives, and about 450 are practicing. Investigation shows that 215 unlicensed midwives were found to be operating. This seems to show that the contention made before Massachusetts legislative committees, that licensing of midwives would eliminate the unworthy, is not sound. Although New Jersey favors the midwife, there are difficulties in getting her to appreciate and apply American standards of living and modern ideas of hygiene. A frank admission is made in the following statement relating to midwives: "We regret to be compelled to report that we have not accomplished as much as we would like to have accomplished, and feel that must be accomplished, properly to protect mothers and infants." Those of our citizens who are trying to legalize the work of the midwife in this State should study the problem from all angles. The statistics relating to the mortality under the operations of midwives is probably as misleading as statistics sometimes are, for in many cases the conditions leading up to death among those attended by midwives lead the midwife to transfer the patient to the care of a physician, and after delay, or the development of sepsis, his efforts may be unavailing, and the practitioner of medicine is charged with the death.

A pertinent question is this: Would a well-trained physician permit his wife or daughter to be cared for during parturition by a midwife? If not, the reason should be given. The solution of this problem lies far beyond the licensing of the midwife.

RED CROSS PIN.

It may not be generally known that wearing a Red Cross pin by a nurse not accredited by the Red Cross is contrary to law, but the arrest of a wearer of this emblem recently, calls to mind an act of Congress, reading as follows:

"It shall be unlawful for any person within the jurisdiction of the United States to wear or display the sign of the Red Cross or any insignia colored in imitation thereof for the fraudulent purpose of inducing the belief that he is a member of or an agent for the American National Red Cross.

"If any person violates the provisions of this section he shall be deemed guilty of a misdemeanor and upon conviction in any federal court shall be liable to a fine of not less than \$1.00 nor more than \$500, or imprisonment for a term not exceeding one year, or both, for each and every offence."

It was explained at the local headquarters that in order to win the privilege of wearing the Red Cross pin, a girl must first become a graduate nurse of a recognized hospital and

must have had training and education of a high standard. When she applies for a Red Cross badge her records are checked up very carefully and an enrollment card is kept at the local office, while a duplicate is sent to national headquarters in Washington. Every pin is numbered and thus it is an easy matter to check up.

THE METHODS OF THE MEDICAL LIBERTY LEAGUE.

THE following circular has been distributed among members of the Legislature:

A NEW RESOLUTION WORTH WHILE.—Isn't it a fact that most laws are proposed by the infinitesimal minority for the coercion of the great majority?

You'll agree, too, that through Law we have our being. But through man-made law most of us are named, numbered, tagged and directed. Through law most of us are threatened, browbeaten, forbidden and punished. Of course, we are registered, licensed, taxed and exploited throughout life until all semblance of individuality, personality and initiative are lost.

On top of all this, when the grafters, the bigots, the social service enthusiasts, the medical monopolists, the conscienceless idle rich philanthropists, the uplifters and reformers (those unhappy creatures who are the real candidates in need of reform) get through with us, then, and only then, does the good Lord have an opportunity to judge us. So with Divine Insight. He caused to be written those words: "Blessed are they which are persecuted, enter thou into the Kingdom of Heaven."

A wise legislator once said: "Let us not make more laws, but rather unmake many of those now made." Rather broad-minded, don't you think? It is another way of suggesting that the people be distrusted less and trusted more.

A true legislator fulfills his destiny when he is broad enough to say: "Henceforth I will do much more than I have been doing for those who, through economic and other necessities, cannot speak for themselves against those to whom food, clothes and rent are of no concern. These latter are usually so busy wreathing their own halos and 'protecting' the common people with more shackles and fetters of fanaticism."

"Henceforth the interests of the great, suffering majority shall be my chief concern. I will protect them from the coal baron, the gasoline pirate, the over-zealousness of the movie censor, the corrupt lawyer, and especially from the *Politico-Medical Trust*."

This is a man-size job!

RÉSUMÉ OF COMMUNICABLE DISEASES. JANUARY, 1922.

General Prevalence.

There were 6,755 cases of communicable diseases reported for this month as compared with 5,903 cases reported for December. This does not represent a report of large size when it is considered that this is a season of greatest prevalence of most of the important communicable diseases. There were 9,185 cases reported for the same period for 1921.

Anterior Poliomyelitis was reported eight times during the month.

Chicken-pox. There were 834 cases of this disease reported for January. Total for last month was 900 cases.

Diphtheria showed a lessened incidence with 911 cases as compared with 1,088 cases for the previous month.

Dog-bite requiring antirabic treatment. There were 17 persons bitten by rabid dogs during this month.

Encephalitis Lethargica was reported in 10 instances.

German Measles. There were 40 cases of this disease reported for the month.

Gonorrhea and Syphilis. Gonorrhea showed a slightly increased incidence, while syphilis showed a slightly decreased incidence. Totals for the month were 404 for the former and 200 for the latter.

Influenza increased from 46 cases for the preceding month to 135 cases for this month. For January, 1921, 158 cases were reported.

Measles increased from 835 cases for December to 1,275 for this month. This does not represent an unusual number as the total for January, 1921, was 2,230 cases.

Pneumonia, Lobar. There were 571 cases of lobar pneumonia reported for the month. This increase over the incidence of the previous month is not unexpected. The total for January, 1921, was 587 cases.

Scarlet Fever showed a like general increase; total for the month was 923 cases.

Tuberculosis, Pulmonary. There were 489 cases of pulmonary tuberculosis reported for the month. This is about the usual number.

Tuberculosis, other forms, was reported in 61 instances.

Typhoid Fever. There were 31 cases reported for this month. This is the least monthly total in nearly two years.

Whooping-cough increased slightly to 326 cases. This represents a small monthly incidence.

RARE DISEASES.

Anterior Poliomyelitis was reported from Cambridge, 1; Lawrence, 2; New Bedford, 1; Palmer, 2; Winchendon, 1; Woburn, 1. Total, 8.

Anthrax was reported from Peabody, 1.
Dog-bite, requiring antirabic treatment, was reported from Arlington, 1; Cambridge, 1; Lowell, 6; Lynn, 3; North Attleboro, 1; Pittsfield, 1; Swampscott, 3; Winthrop, 1. Total, 17.

Dysentery was reported from Fall River, 1.
Encephalitis Lethargica was reported from Beverly, 1; Boston, 1; Fall River, 1; Lynn, 1; Newburyport, 2; Newton, 1; Peabody, 1; Somerville, 1; Watertown, 1. Total, 10.

Epidemic Cerebrospinal Meningitis was reported from Boston, 2; Lowell, 1; Southbridge, 1; South Hadley, 1; Springfield, 1; Winchendon, 1; Worcester, 1. Total, 8.

Malaria was reported from Boston, 1.

Pellagra was reported from Salem, 1; Wrentham, 1. Total, 2.

Septic Sore Throat was reported from Boston, 4; Bourne, 1; Fall River, 1; Haverhill, 1; Leominster, 1; Lowell, 1; Lunenburg, 1; Medford, 1; Springfield, 1; Wellesley, 1. Total, 13.

Tetanus was reported from Boston, 1; Leominster, 1. Total, 2.

Trachoma was reported from Norwood, 1; Tewksbury State Infirmary, 1. Total, 2.

the Middle Ages, including Plague, Gangrenous Ergotism, Leprosy and Malaria.

2. The History of Anatomy.

3. The revival of medical knowledge during the sixteenth century.

Communications should be addressed to: The General Secretary, Dr. J. D. Rolleston, 21, Alexandra Mansions, King's Road, London, S.W. 3.

The subscriptions are as follows: Members of the International Society of the History of Medicine (including annual subscription), £1 12s; Members of the London Congress only, £2; Associate (student or relation of a member), 8s.

Remittances should be sent to the Treasurer, W. G. Spencer, Esq., O.B.E., F.R.C.S., 2, Portland Place, London, W. 1.

The officers of the Congress are: President of Honour, Sir Norman Moore, Bart., M.D.; Vice-Presidents of Honour, Sir D'Arcy Power, K.B.E., F.R.C.S.; Professor Ménétrier, Professor Jeanselme, Dr. Tricot-Royer; President of Congress, Charles Singer, M.D.; Treasurer, W. G. Spencer, O.B.E., M.S.; General Secretary, J. D. Rolleston, M.D.

THIRD INTERNATIONAL CONGRESS OF THE HISTORY OF MEDICINE.

The International Society of the History of Medicine was founded in Paris on October 8, 1921. It has for its object the study of the History of Medicine in all its branches and the coordination of research work in these subjects.

A Permanent Committee has been established in Paris, consisting of delegates appointed by Sections of the Society in various countries.

The Society meets in congress every three years, and it has been decided to hold the next meeting in London, from July 17th to 22nd, 1922. Meetings will be held at the Royal Society of Medicine, the Royal College of Physicians, the Royal College of Surgeons, the Wellcome Historical Medical Museum, and elsewhere. There will be special exhibitions of objects connected with the history of medicine, surgery and the allied sciences. The loan of any objects of special interest from members will be greatly appreciated by the Executive Committee.

Communications are invited from members on subjects connected with the history of medicine in all its branches.

The following subjects have been suggested for communication and discussion, but are by no means intended to exclude papers on any subject of general interest in connection with the history of medicine:

1. The principal seats of epidemic and endemic diseases in the Occident and Orient in

MASSACHUSETTS STATE NURSES' ASSOCIATION.

THE mid-winter meeting of the Massachusetts State Nurses' Association was held at the New England Women's Club, February 18, 1922.

The morning session, in charge of the League of Nursing Education, Miss Melissa Cook, President, presiding, was very largely attended.

Following the business meeting valuable papers were contributed by Dr. Maynard Ladd, "Some Facts in the Feeding of Children," and Dr. L. Vernon Briggs, "Mental Hygiene in Its Relation to Present-Day Nursing."

Miss Bertha M. Wood, in charge of the Nutrition Clinic in Boston Dispensary, opened the discussion following Dr. Ladd's paper.

Miss Margaret J. Fallon, Superintendent of Nurses, Boston Psychopathic Hospital, presented the schedule of the proposed post-graduate course at the Boston Psychopathic Hospital.

Miss Minnie Hollingsworth presided at the Private Duty Nurses' Section at 11.30 A.M. Reading of reports, nomination of officers, discussion of representation and program for Seattle convention constituted the business meeting.

The afternoon session was opened by Miss Carrie M. Hall, President, presiding. Prayer was offered by the Reverend Alexander Mann, D.D., Rector of Trinity Church, Boston.

Following the business meeting, Miss Cameron, Assistant Director of the Red Cross Nurs-

ing Service of New England, gave an interesting report of the activities of Red Cross nursing for 1921.

Miss Sally Johnson, Superintendent of Nurses of Massachusetts General Hospital, Boston, told of the 1920 Legislative Campaign of the New York State Nurses' Association, and Miss Sarah E. Parsons, of Boston, gave the facts of the 1921 Legislative Campaign of the Missouri State Nurses' Association.

A general discussion followed.

Tea was served at 4.30 P.M., by the Peter Bent Brigham Hospital Nurses' Alumnae Association.

Miss Zepha Gardner presided at the Public Health Section meeting at 5 P.M.

Dr. C. Macfie Campbell, Director of Boston Psychopathic Hospital, gave an excellent talk on "Importance of Psychiatry for the Nurse."

All the meetings were largely attended.

The following composed the committee in charge of arrangements for this meeting: Ellen C. Daly, R. N.; Sally Johnson, R. N.; Helen M. Blaisdell, R. N.; Jane B. Homer, R. N.; Anna R. Ross, R. N., Chairman; Mary Alice McMahon, R. N., Publicity Chairman.

NEW ORGANISM AKIN TO BOTULINUS.

THE existence, says the Public Health Service, in a recent report by Ida A. Bengtson, has been demonstrated of an anaerobic organism producing a soluble toxin which affects animals in a manner similar to that of the botulinism organism, but which fails to be neutralized by polyvalent botulinus antitoxin. Study of the organism, as found in the larvae of the green fly, *Lucilia caesar*, sent to the Service, indicates that it differs markedly from the botulinus isolated in the United States, and possibly is more nearly related to the European type described by von Ermengem in 1912, though it differs from this in important respects. Tests on laboratory animals by inoculation and by feeding, caused death in from five to seventy-one hours. The most striking pathological result was, as in botulism, the congestion of the blood vessels of the brain and meninges. Efforts are being made to produce an antitoxin. The suggestion that the organism of the disease causes limberneck in chickens has not yet been demonstrated.

LEGISLATIVE NOTES.

THE bill originally presented by Bernard Early, providing for additional remuneration for the Chairman of the Board of Registration of Nurses, has been amended by the Committee on Public Service and now appears as House 1312. This bill provides for a maximum compensation for the chairman of this board of seven hundred and fifty dollars.

THE Committee on Public Health have reported "leave to withdraw" on Senate bill 130—petition of Medical Liberty League relating to vaccination and school attendance, and House bill 1056—petition of George W. Reed for elimination of the requirement of a physician's certificate as to vaccination as a prerequisite to admission to public schools.

LEGISLATIVE HEARING.

House bill 955 was considered by the Committee on Public Health March 1st.

This bill is designed to amend the law relating to the registration of physicians. At the present time, Massachusetts only requires of applicants for registration that a physician must have graduated from a medical school which gives a four-year course. The quality of instruction is not in any way defined, and there are no provisions relating to preliminary education or clinical experience.

The result is that graduates from medical schools which have little or no standing among recognized authorities may and often do secure the right to practise in this State.

The hearing was conducted by Dr. Charles F. Painter, Chairman of the Committee on Medical Education of the Massachusetts Medical Society. Dr. Painter explained the provisions of the bill which would, if enacted, require students to have spent two years in a college of liberal arts in addition to a high school course, and to have given attention to biology, chemistry, physics and the English language. The bill further provides that applicants should have had experience as an interne in a hospital of at least twenty-five beds. He explained the importance of intellectual training in order to enable a student to assimilate the instruction now given in well-equipped medical schools.

Dr. Stevens of the Committee exhibited a map showing state regulations relating to medical education. Ten states require two years of premedical work in a college of liberal arts and one year as interne. Two require one-year premedical college work and one interne year. Twenty require two years of premedical. Two require one year of premedical. Five require four years in a high school. One has no provision in the law relating to premedical work, but gives to the registration board power to rule that only graduates of class A and B colleges shall be accepted. Two have no requirements in the law but give discretionary power to the board. And Massachusetts stands at the present time the lowest in the scale, for there is neither in the law nor in the power of the board any provision for fixing any standard for premedical study, internship nor any requirement of a medical college other than it must give a four years' course.

The President of the Massachusetts Home-

opathic Medical Society, Dr. Prior, Chairman of the Board of Registration in Medicine, and others, explained the fact that even the "poor boy" could, through scholarships and aid funds, get a medical education in a good school, at less expense than in a low-grade institution.

This situation has been clearly presented for several years, but the opponents have heretofore been able to convince the legislature that no change for the better is advisable.

The opposition to the bill came almost entirely from the osteopathic profession, and the College of Physicians and Surgeons of Boston. These objectors ignored the real purpose of the bill, which is to provide a better average grade of practitioners for the people of this State, and argued that the bill is designed to benefit that portion of the profession who have graduated from certain schools, and asserted that this bill is along the line of class legislation. The lack of logic did not seem to be appreciated by these opponents, for the purpose is to provide better service for all the people.

The contention was made that the requirement of an interne year would close the School of Osteopathy in this State, because no students are now taken as internes in many of the hospitals.

One can hardly appreciate the logic of this argument, for if the osteopathic profession intends to continue to develop practitioners of medicine there should be hospitals created which can give clinical instruction to the students. One can easily understand the ground for opposition, for if there is no probability of being able to develop a real medical school, these inadequately equipped institutions should retire from the educational field, but the supporters of these schools want to continue to maintain them.

THE SHEPPARD-TOWNER ACT.

The great interest of the public in the Shepard-Towner Act was evidenced by the fact that the Auditorium in the State House was filled at the hearing held on February 20, before the Committees on Public Health and Social Welfare, sitting jointly. The question was on the acceptance or non-acceptance of the act by the State.

Dr. Kelley, the Commissioner, and Dr. Champion, head of the Division of Hygiene, represented the State Department of Public Health. They advocated the acceptance of the act in spite of the fact that, in general, they opposed interference by the Federal Government in matters which they felt could better be left to the State and local agencies. The State must contribute so largely toward carrying out the provisions of the act that they felt it wise to accept the act, make an additional ap-

propriation of about \$15,000 and secure the grant from the Federal Government, in order to carry on: first, educational work; second, the investigation of conditions, and third, the development of nursing service. Other speakers in favor of the bill were Drs. S. B. Woodward of Worcester, and Dr. Robert DeNornandie of Boston.

Among those opposing the bill was Dr. Charles E. Mongan of Somerville. He pointed out the fact that under the provisions of the bill, the so-called Board, consisting of the Chief of the Children's Bureau, the Surgeon-General of the United States Public Health Service, and the Commissioner of Education, had little power, and that the administration of the act came under the Children's Bureau and the Secretary of the Department of Labor. The effect would be bureaucratic control.

The morning and afternoon sessions were consumed in the discussion, and therefore consideration of the Spencer bill was put off for a special hearing, set for March 8.

THE CHIROPRACTIC BILL.

The proponents of this bill, which provides for legalizing the practice of chiropractic, have decided to ask to have the bill considered in the legislature of 1923, and do not intend to have it considered in this session.

Correspondence.

"THOU SHALT NOT KILL."

Mr. Editor:

Recently I read in the Boston press of a bill proposed by a legislator from Worcester which would provide with sentencing to death hopeless incurables. I hope you will allow me space to register my protest to this bill.

"Thou shalt not kill" is as old at Mount Sinai, where Moses received God's Decalogue. The proposed law would strike at the very foundation of religion.

Most physicians would object because what is proposed would violate that portion of the oath of Hippocrates which says, "I will use that regimen which, according to my ability and judgment, shall be for the welfare of the sick, and I will refrain from that which shall be baneful and injurious. If any shall ask of me a drug to produce death, I will not give it, nor will I suggest such counsel."

If the proposed law were passed, the value of life would be lessened. Life is valued little enough now. Scan the columns of the daily newspapers and read of the murders and suicides. Are not conditions bad enough now? Who could be trusted with the authority to sentence to death the hopeless victims?

Life is sweet, even to those hopelessly incurable, and if these incurables are resigned to bear their crosses of suffering, why should the law interfere?

The proposed law would be contrary to the teachings of Christ, who alleviated suffering, not by kill-

ing off the incurables, but by curing them. Didn't he make the lepers clean, the blind see, the lame walk, the deaf hear, and the dead rise? Of course we cannot perform miracles, but that is no reason why we should break the commandment, "Thou shalt not kill."

Yours very truly,
GAETANO PRAINO, M.D.

DOMICILIARY TREATMENT OF TUBERCULOSIS.

Mr. Editor:

The editorial on Domiciliary Treatment of Tuberculosis in the edition of February 16, 1922, should receive the careful attention of physicians who have the care of tuberculous patients in their homes. There are one or two statements, however, which I am inclined to challenge as tending, possibly, to be subversive of methods which after thirty-odd years of experience in the sanatorium treatment of pulmonary tuberculosis, I regard as of paramount importance.

First, is the method of fresh air carried to its limit, even in cold weather and, in my opinion, this is best carried out by open-air (balcony) sleeping, rather than in rooms with the windows open, the tendency to draughts being less in the former case. Naturally, body warmth is of the greatest importance, and this can be accomplished easily, even in very cold weather, by proper clothing and bedding.

Your editorial makes this statement: "There are many consumptives . . . who are attempting to sleep, *between shivers* (the italics are mine). In the open air who would be vastly better off in a warmer, comfortable room (which they are really longing for), with less air and more comfort."

I challenge this statement as liable to serious misinterpretation with a tendency to throw discredit upon what has been proven of infinite benefit to many a consumptive, in contrast to the old methods of keeping patients "out of night air," in warm, stuffy rooms, thus depriving them of one of the most important factors in cure and prevention of disease. While granting that in cases of far-advanced disease, the more rigorous methods may be modified, it would be a thousand pities if such a statement as quoted above, with the stamp of authority upon it, were to be construed as advocating any radical modification of our present advocacy of fresh air treatment pushed to the limit in suitable cases.

In the new Children's Preventorium at Sharon, the only modification of the treatment is during school hours, when the warmly clothed children are taught in a large, properly ventilated, slightly warmed schoolroom, the windows of which are open, thus enabling the children to work with their hands more easily, without danger of being chilled, in accordance with the demonstrations of Dr. Chadwick of the Westfield Sanatorium to which your editorial refers. I should like to take this opportunity to urge all physicians to visit the Preventorium and see for themselves the methods pursued there for delicate children between six and fourteen years of age.

Frequent questionings of patients who sleep on the open balconies at Sharon in the coldest weather has revealed the fact that they have been "perfectly comfortable," and an attempt to take them indoors is usually resented, and the pity expressed at such times by friends for their supposedly uncomfortable condition, is usually met with laughter and denial. In the early days of the Sharon Sanatorium, the open-air treatment was not so rigidly enforced as in later years. When first established, it was accompanied by a fear lest it might be too

rigorous, especially for elderly people. As a matter of fact, a surprising and very marked improvement in all results was noted, following this change, in the majority of cases, there being only few exceptions to the general rule. Even in cases of elderly women over sixty years of age, for whom one would naturally suppose that such treatment would be far too rigorous, we have counted some of our most successful results, the patients having often been the most enthusiastic adherents to the methods used, leaving the sanatorium looking bright and well, and with the glow of health upon their faces that removes all doubt as to the efficacy of their treatment, as far as the general condition is concerned.

In regard to the cold baths upon rising, the editorial is, in my opinion, also misleading. No sensible person would ask a patient to go from a warm bed into "ice-cold" water; but the practice of cold (not tepid) bathing when in a properly warmed bathroom is, in the majority of cases, favorable in its tonic effect. Here again there may be exceptions to the rule, but long experience teaches me the wisdom and the beneficial effects of cold bathing in the morning as a routine treatment. Such methods do not involve "prodigal and wasteful expenditure of vital energy," but, in my opinion, tend to improve it.

Very truly yours,
VINCENT Y. BOWDITCH.

AMERICAN SOCIETY FOR THE CONTROL OF CANCER.

Mr. Editor:

It may interest some of your readers to see a detailed report of the results of the activities of "Cancer Week" (October 30 to November 5, 1921), in Massachusetts. Twenty cities and towns in the State took part, and the officers of the different District Societies of the Massachusetts Medical Society contributed in every way to make a success of this movement in popular health education, which originated in the American Society for the Control of Cancer. The report follows:

SUMMARY REPORT.

A. Number of lectures delivered	104
1. Total number of persons reached by lectures	14,515
B. Amount of literature distributed (number of pieces)	95,000
1. Number of post cards disposed of	1,000
C. Number of news articles and editorials printed	67
1. Number of Moving Picture Theatres in which slides were shown	20

DETAILED REPORT.

	No.	Attendance
A. Lectures before:		
Professional and scientific bodies	33	1,695
Public audiences	14	2,925
Meetings for medical students	2	600
Meetings for dental students	1	150
Meetings for Public Health students	1	50
Meetings for nurses (graduate and undergraduate)	17	2,625
Meetings for women's clubs	16	1,495
Meetings for social service	2	335
Meetings for Chambers of Commerce	3	450
Meetings for Labor Unions	4	1,230
Meetings for ministerial groups	1	90
Meetings for Church Clubs	5	650
Meetings for Rotary and Kiwanis Clubs	4	290
Meetings for High Schools	1	2,000
	104	14,515

B. 2 Special Posters, printed and circulated

- 1 Special Announcement "Cancer Week,"
circulated 1,500 copies

C. Publicity:

1. Number of news articles (4 Sunday
specials) 48
Number of editorials 19
Number of articles in Medical Journals 2
Number of editorials in Medical Journals 2
2. Number of slides prepared for movies.. 19
Number of theatres where shown 20
Number of times shown 4 to 42
Approximate number of persons reached 100,000
3. Number of showings of A.S.C.C. film.. 2
D. Number of demonstration clinics 15
(Counted above in lectures before
Professional and Scientific bodies.)

ADDITIONAL.

- A. Cancer exhibit, Harvard Medical
School 2 weeks
B. Circular letter Local Health Boards
of Massachusetts 355 copies
C. Circular letter Industrial Nurses... 28 copies
D. Special edition Bi-monthly "Com-
mon Health," by State Depart-
ment of Health, to doctors and
others 10,000 copies
E. Circular "Cancer Week" to:
(1) Federation of Churches.... 355 copies
(2) Episcopal Ministers 300 copies
(3) General Circulation..... 900 copies
F. Letter to Dentists of Massachusetts 3,000 copies
G. "What We Know About Cancer," to
Physicians and Medical Students 600 copies

Respectfully yours,

R. B. GREENOUGH, Chairman.

Massachusetts Committee, American Society for the
Control of Cancer.

REGISTRY OF BONE SARCOMA.

227 Beacon Street,

BOSTON, MASS., February 27, 1922.

Mr. Editor:

I wonder if the result of my letter in your issue of February 2nd would interest your readers? My letter was intended to enable the Registry of Bone Sarcoma to find out how many cases of Bone Sarcoma were known to be living in Massachusetts, whether cured, under treatment, or moribund. It suggested that if every one of the 5494 physicians in this state would drop me a postal stating whether or not he knew of a case, we should have at once the best statistics ever obtained on the frequency of this disease.

In reply I have had, up to date, *only seventeen negative and two positive answers*. Is this because your Journal is not read or because of the indifference of the medical profession as to whether the frequency of bone sarcoma is known or not?

Perhaps your readers may be interested in the human nature problem involved, even if they are indifferent as regards the advance of medical science. Your editorial board may also be interested to know what proportion of your 3546 subscribers in Massachusetts read the Journal thoroughly. I therefore enclose a diagram which aims to analyze the problem.

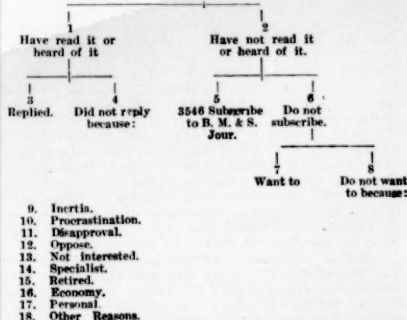
If you are interested enough to publish this letter and diagram in three successive issues, I will undertake to send a return postal to every physician listed, as living in Massachusetts. In the Directory of the American Medical Association, who has not dropped me a postal a week after the third issue. On one-half of the postal I will have this diagram printed; the other half will have the return address

to me. Eventually you can publish the diagram with the numbers following each heading. This will give the facts to the few interested in bone sarcoma and the many interested in the *Boston Medical & Surgical Journal*, and in the psychology of the medical profession.

Sincerely,

E. A. CODMAN, M.D.

5495 PHYSICIANS IN MASSACHUSETTS.

LETTER ON REGISTRY OF BONE SARCOMA IN BOSTON MEDICAL &
SURGICAL JOURNAL, FEBRUARY 2, 1922.

Please reply to this by consecutive numbers, e.g., 1-4-15 means "I have read or heard of the Registry and did not reply because I have retired from practice"; 2-6-8-16 means "I have not read nor heard about the Registry of Bone Sarcoma and do not subscribe to the *Boston Medical and Surgical Journal* from motives of economy."

RECENT DEATHS.

DR. GEORGE A. OVIATT physician in South Sudbury for forty-six years, died at the Waltham Hospital, February 26, 1922, at the age of seventy-two years. He was the son of the Rev. George A. Oviatt, minister of the Congregational Church at South Sudbury, and received his medical education at the College of Physicians and Surgeons, Columbia University, New York, where he took his degree in 1875. The next year he settled in South Sudbury. In addition to an active practice, during his lifetime he was interested in the town library and in church and Red Cross work. Although beyond the retiring age of sixty-five, he maintained active fellowship in the Massachusetts Medical Society, which he joined in 1876. He is survived by his widow, a son and a daughter.

DR. WILLIAM TOWLE SOUTHER, aged 71 years, a physician in Worcester for years, died February 21, 1922, at his home, from pneumonia.

He was born in Belfast, Me., March 7, 1850, the son of the Rev. Samuel L. Souther and Mary Francis Towle. The latter is still living in Cleveland, Ohio, and is 96. The Souther family went to Worcester when Dr. Souther was seven years of age. He was graduated from the Classical High School and then entered Yale University. He was graduated with the degree of A.B. in 1873. After acting as principal at the Grafton High School for one year he went to Harvard Medical School, where he was graduated in 1878. He served as house officer at the Boston City Hospital and began to practise medicine in Worcester that year.

Dr. Souther was a fellow of the Massachusetts Medical Society from 1877 until 1911, when he resigned. He was a member of the Worcester Medi-

cal Improvement Society and of the Worcester Natural History Society.

Dr. Souther was particularly interested in educational matters. He was a Republican, and was elected as member of the school committee, Ward 1, in 1884, serving for a number of years, part of the time as chairman of the committee.

Dr. Souther retired from active practice about 15 years ago.

AMERICAN PEDIATRIC SOCIETY.

PRELIMINARY PROGRAM.

Thirty-fourth annual meeting, May 1st, 2nd, 3rd, 1922, Wardman Park Hotel, Washington, D. C. Members are urged to make hotel reservations at once. Committee of Arrangements: Maynard Ladd, President; Charles A. Fife, Chairman of Council; Howard Childs Carpenter, Secretary, 1805 Spruce Street, Philadelphia.

Monday, May 1st. Opening session. Presidential address, Maynard Ladd; Prognosis and Treatment of Tuberculosis in Infancy and Childhood, Rowland G. Freeman; D'Esplene's Sign in Childhood, John Lovett Morse; The Size of the Sella Turcica in Relation to Body Measurements, Lawrence T. Royster and Nathaniel F. Rodman (by invitation); A Further Note in the Use of Water in Dehydrated Infants, J. Claxton Gittings. Afternoon. Second session: The Treatment of Pyelitis, Henry F. Helmholz; Indications for Tonsillectomy in Infancy and Childhood. Is the Modern Tendency Toward Universal Tonsillectomy Justified? Henry Helman; Report of Studies on Intestinal Motility in Infancy, Rood Taylor; Observations on the Hydrogen Ion Concentration of the Gastro-Intestinal Secretions in Infancy, W. McKim Marriott and Leonard T. Davidson (by invitation); Experimental Studies with Proprietary Vitamine Products, Julius H. Hess, Josiah J. Moore (by invitation), and Joseph K. Calvin (by invitation); Infantile Cerebro-Cerebellar Diplegia, Atonic Type, T. C. Hempelmann. Evening: Meeting of Council, 8.15.

Tuesday, May 2nd. Third Session: Title to be announced later, John Howland; The Rate of Secretion of Breast Milk, Charles Hendee Smith; Blood in Human Milk, Isaac A. Abt; Spasmodic, Henry Koplik; The History of a Case of Measles, Complicated by Otitis Media, Mastoiditis and Meningitis, Henry T. Macbell; A Peculiar Case of Purulent Meningitis in the New Born, DeWitt H. Sherman; Case Report of an Unusual Mediastinal Tumor, Thomas B. Cooley. Afternoon. Fourth session: A Study of the Acidosis Due to Ketone Acids, James L. Gamble; "Follow-up" Records of a Series of Patients with Bronchial Pneumonia, Walter Lester Carr; Basal Metabolism of Prematurity, Fritz R. Talbot and Warren R. Sisson (by invitation); Observations on Burns in Children, Kenneth D. Blackfan and Harold L. Higgins (by invitation); title to be announced later, D. J. Milton Miller; Lucilia, the Ubiquitous Paralysis Fly and Its Ally, the Buzzard, E. W. Saunders. Evening: First session of Congress of American Physicians and Surgeons; address by the President of the Congress.

Wednesday, May 3rd. Fifth session: Business meeting (for members only). Report of Council; A Study of the Shadows in the Thorax of the Newly Born, L. R. DeBays; Aplastic Anemia in Children with the Report of a Case Markedly Improved by Transfusion, Charles Herrman; title to be announced later, D. Murray Cowie; The Dosage of Diphtheria Antitoxin, and Analysis of the Records of the South Department, Edwin H. Place; Acute Infections of the Urinary Tract in Infants and Children, Subsiding Without the Appearance of Pus in the Urine, Walter R. Ramsey. Afternoon. Second session of Congress of American Physicians and Surgeons. Subject: Some Aspects of the Physiology

and Pathology of Nutrition. Papers: E. V. McCollum, School of Hygiene and Public Health of Johns Hopkins University; L. B. Mendel, of Sheffield Scientific School of Yale University.

Notice.—The number of visitors to the annual meeting is not limited, but guests shall be restricted to those especially invited by the Committee of Arrangements.

CORRECTION RELATING TO THE REPORTED DEATH OF DR. GEORGE H. GORHAM OF BOSTON.

Dr. Walter L. Burrage, Secretary of the Society, reports that the statement in the *Journal of the A.M.A.* of February, 18, 1922, relating to the death of Dr. George H. Gorham of Boston is incorrect.

Dr. George H. Gorham of 81 Corey Street, West Roxbury, is alive.

The statement probably referred to George H. Gorham of Bellows Falls, Vt. It is hoped that Dr. Gorham of Boston will enjoy long life.

MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH.

REPORTED WEEK ENDING FEBRUARY 25, 1922.

Disease.	No. of Cases.
Anterior poliomyelitis	2
Chicken-pox	127
Diphtheria	187
Dysentery	1
Encephalitis Lethargica	2
Epidemic Cerebrospinal Meningitis	2
German Measles	7
Gonorrhea	87
Influenza	1,285
Malaria	2
Measles	590
Mumps	124
Ophthalmia Neonatorum	19
Lobar Pneumonia	283
Scarlet Fever	208
Septic Sore Throat	5
Syphilis	38
Suppurative Conjunctivitis	8
Trachoma	1
Trichinosis	1
Tuberculosis, Pulmonary	90
Tuberculosis, other forms	17
Typhoid Fever	18
Whooping Cough	84

STAFF MEETING AT THE CHILDREN'S HOSPITAL.—A clinical meeting of the staff of the Children's Hospital will be held in the amphitheater, Friday, March 10, 1922, at 4.30 p. m. Cases will be demonstrated. Physicians and students are cordially invited to attend.

STAFF CLINICAL MEETING, BOSTON CITY HOSPITAL.—Cheever Surgical Amphitheatre, Friday, March 10, 1922, at 7.45 p. m. to 9.30 p. m. Topics: Some Facts Concerning Results in Cases of Obstructing Prostates Treated at the Boston City Hospital during the Past Four Years, H. Howard, M.D.; Some Unusual Conditions in Renal Tuberculosis, A. L. Chute, M.D.; Hydronephrosis, W. C. Quinby, M.D.; Stasis in the Kidney, E. G. Crabtree, M.D. Discussion opened by P. Thorndike, M.D. Physicians and Medical Students invited. Refreshments, 9.30-10.30. H. Archibald Nissen, M.D., Halsey B. Loder, M.D., Committee.